VARIATION IN YOD PRONUNCIATION: A COMPARATIVE STUDY

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Overview of abbreviations and groups

WL	word list
RP	reading passages
S/SS	stressed syllables
U/US	unstressed syllables
MENURB	mental urbanisation
SOCEC	socio-economic class
SOCNET	social networks
~	a sound range between two sounds

yod variant	*number*	*colour*
yod retention	1	green
coalescence with yod	2	yellow
coalescence without yod	3	blue
yod dropping	4	red

age group	*age range*
1	8–14
2	15–21
3	22–45
4	46–60
5	61+

SOCEC group	*corresponds to*	*SOCEC score*
1	LWC = lower working class	0–3
2	UWC = upper working class	4–6
3	LMC = lower middle class	7–10
4	MMC = middle middle class	11–14
5	UMC = upper middle class	15

SOCNET group	*means*	*SOCNET score*
1	no interaction with locals	0–2
2	some interaction with locals	3–4
3	moderate interaction with locals	5–6
4	a lot of interaction with locals	7–8

Syllable groups	*position of yod*
1	/ju/ in main stress on the first syllable in one-syllable words
2	/ju/ in main stress on the first syllable in two-syllable words
3	/ju/ in main stress on the first syllable in three-syllable words
4	/ju/ in main stress on the second syllable
5	/ju/ in secondary stress
6	/ju/ in unstressed syllable separated from main stress by a syllable
7	/ju/ in unstressed syllable before a stressed syllable
8	/ju/ in unstressed syllable after a stressed syllable

Syllable pattern = proportions of the four yod variants

1–3 group pattern = gradually increasing coalescence/dropping at the expense of retention from syllable group 1 to syllable group 3

1. Introduction

This study focuses on variation of yod pronunciation after the alveolar consonants /t, d, n, s, z, l/ and after the dental consonant /θ/ before /ʊ/ and /u:/. The varied pronunciation of some frequent yod words, such as *news* or *Tuesday*, has been a subject of discussion among linguists and in the media for some time. The variable is clearly undergoing a change and the fact that the new variants /nu:z/ and /ʧu:zdeɪ/ are criticised by language-aware adults and seem to be unacceptable to many RP speakers suggests that the innovative forms might be connected with age and might be socially stigmatised at the moment. The aim of this study is to trace the development of changes in yod variation and to investigate the factors influencing the choice of yod realisations. This is done in a systematic manner by means of two case studies to enable data comparison across all linguistic and social factors but also to make it possible for other researchers to use parts of the data for further research on yod pronunciation. An attempt is made to answer the following broad research questions:

1. Does the pronunciation of yod depend only on the preceding phonological context?
2. Could other linguistic factors influence the choice of yod realisations?
3. Do any social factors influence the choice of yod realisations?

Two small towns in the south of England from yod-retaining areas were chosen for the two case studies. Both Braintree in Essex in the south-east of England and Weston-super-Mare in North Somerset in the south-west of England lie within reach of a city, London and Bristol respectively. Most informants reside in a quiet neighbourhood of their respective town with a village-like atmosphere: Bocking, a part of Braintree, and Milton, a part of Weston-super-Mare. The findings of this study are based on 70 Braintree informants and 85 Weston-super-Mare informants, who read individual words and short texts containing 102 and 125 potential /ju:/ words respectively. The following phonetic, linguistic and sociolinguistic aspects were considered in the sample analysis.

Phonetically, the presence or absence of yod and phonemic changes resulting from the variation are the focus of observation. Four, in some cases only two, variants of yod pronunciation (specified in 1.1, details in 3.6), which are relatively easily audible, were distinguished. This is also a reason why ordinary auditory perception was used rather than instrumental analysis, which would require laboratory recording conditions and which would

make the analysis of over thirty-three thousand utterances rather time-consuming and quite unnecessary for a quantitative study.

Linguistically, preceding phonological context, syllable stress in general and syllable patterns of words were examined. A matrix (p. 33) was created to ensure all linguistic aspects mentioned above are covered, which inevitably means that some rather unusual words are included to fill all matrix cells. Analysis of free speech is not part of the study because of the number of the desired words and because of the low frequency of these /ju:/ words, especially in informal speech.

From the sociolinguistic point of view, age, sex, socio-economic class, social networks and attitudes to an urban way of life were of interest. The issue of ethnicity was not a relevant factor in either town.

The thesis starts by introducing the variable yod and briefly tells its history. Chapter two gives an overview of previous work on contemporary yod pronunciation, including its description in phonetic handbooks, its position in RP, Estuary English, and observations on yod in several varieties of English, with maps from several major linguistic atlases. It also mentions the few studies containing sociolinguistic information about yod pronunciation. Chapter three explains the research design as well as the methods used for setting up the project and analysing the data. It proposes tentative hypotheses. Chapter four presents the case study from Braintree and chapter five presents the case study from Weston-super-Mare. Both studies are self-contained and can be read or used in isolation. The geographical and demographic information about the area, the sample characteristics and the overall yod distribution are followed by two detailed technical subchapters. In the first part, the linguistic categories of stress, style, preceding linguistic context, syllable groups, syllable groups in different preceding contexts, words with the same morpheme, words from headings vs. words from text and following linguistic context are examined. In the second part, yod variants are examined across social factors: age, sex, age and sex, age and preceding context, mental urbanisation, socio-economic class, education, and social networks. All yod variants are statistically tested across all social factors. The results are best seen in the diagrams, where each yod variant is represented by a certain colour, which is used systematically throughout the thesis. This makes it easy to follow specific yod variants throughout the study or within a certain factor or in an individual word. Before the conclusion of each study, there is an analysis of a self-reporting task which was completed by all informants after their interview. Chapter six compares the two studies in a similar manner, while chapter seven concludes with the main findings and suggestions for further research.

It is hoped that this study will provide an insight into changes of pronunciation of yod in modern English and thus make a small contribution to the description of phonetic change as a whole.

1.1 The variable studied

/j/ is functionally a consonant, an unrounded palatal approximant, but phonetically it has vocalic qualities. It is "a brief [i]-vowel-like glide" (Collins and Mees 2003:89). Therefore it is also labelled as an unrounded palatal semi-vowel, which is characterised by "a rapid vocalic glide onto a syllabic sound of greater steady duration" (Gimson 1989:212, Cruttenden 1994:190 and 2001:210), except when /j/ occurs after a voiceless consonant, e.g. /t/, then /j/ becomes voiceless and fricative. In that case it is the friction rather than the glide that identifies the phoneme. In general, the glide begins from the position of approximately /i:/ with spread or neutral lips.

The difference between /ʊ/ and /u:/, apart from the length, is that the latter vowel is tense. Moreover, when /u:/ follows /j/, the palatal nature of the semi-vowel is the reason for centralisation of the vowel (Gimson 1989:121). Speakers are not aware of the variation in their speech when it is below the level of the phoneme, which in this study concerns the allophones of /u:/ and often also the allophones of /j/.

Throughout the study, four variants of yod will be discussed and referred to by the following terms: yod retention – an alveolar is followed by a glide /ɪ/ or /j/ and /ʊ/ or /u:/ as in /tjuːzdeɪ/; coalescence with yod – the alveolar is assimilated with /j/ and can form a new phoneme, a palato-alveolar consonant, which is followed by a glide /ɪ/ or /j/ and /ʊ/ or /u:/ as in /ʧiuːzdeɪ/; coalescence (without yod) – the alveolar is assimilated with /j/ and can form a new phoneme, a palato-alveolar consonant, which is followed by /ʊ/ or /u:/ as in /ʧuːzdeɪ/; and yod dropping – /j/ is omitted, which means that an alveolar consonant is followed by /ʊ/ or /u:/ as in /tuːzdeɪ/. The specific variations for each alveolar are shown in chapter 3.6. The allophones of the four variants distinguished in the analysis were not studied. However, they are listed in chapter 3.6 and mentioned when relevant.

As yod tends to behave differently in different environments, all yod variations will be treated separately in stressed and unstressed syllables.

1.2 A brief history of the present day /ju:/ pronunciation

The present /ju:/ sound derives from many sources, of which the main sounds are the Middle English diphthongs [iu], [eu], [ɛu] and [y:] (Orton 1933:88–90; Bloomfield & Newmark 1963:113). The Middle English [iu] had a falling stress, followed later by a stage in which it had an even stress. From the end of the 16th century [iu] started developing a rising stress and changed into [ju:], where the second element is stressed and prolonged. [ju:] became the common pronunciation around 1640, even though, according to Cooper (1685, from Dobson 1968, in Prins 1972), [iu] was still preferred in careful speech. The origins of several words used in the study are shown by way of illustration (Tab. 1.1).

Tab. 1.1 Origins of words (Orton 1933:89–90)

word	derives from	originates in	pronunciation
Tuesday	Middle English [iu]	Old English *iω*	[tjöuzdə], [tjeuzdə], [tšöuzdə]
new	Middle English [eu]	Old English *eoω*	[njöu], [njeu]
dew	Middle English [ɛu]	Old English *eaω*	[diú], [djöu], [djeu], [džöu]
due	Middle English *ü*	Anglo-Norman *ü*	[djöu], [djeu], [džöu]
during	Middle English *ü*	Anglo-Norman *ü*	[djöurən], [djeurən]
stupid	Middle English *ü*	Anglo-Norman *ü*	[stjöupəd], [stjeupəd]
tube	Middle English *ü*	Anglo-Norman *ü*	[tjöub], [tjeub], [tšöub]
suit	Middle English *ü*	Anglo-Norman *ü*	[sjöut], [sjeut]

Yod dropping and yod coalescence, also referred to as palatalisation of /j/, are two developmental processes involved in the history of /ju/. These processes are still ongoing and are the subject of this study. The quality of the following /u/ has also been influenced by the changes, but is not the main focus of the study. Nevertheless, when some changes in the vowel quality which are clearly audible occur and are repeated by several speakers, they are noted. The history of and observations on the vowel quality in /ju:/ are therefore also included.

The process of yod dropping started in the seventeenth century. Wells (1982) distinguishes two stages of yod dropping. In Early Yod Dropping /j/ was lost after palatals, palato-alveolars, /r/ and after /l/ preceded by a consonant. Lass (1999, vol. III:100) notes that in the eighteenth century the "loss of /j/ becomes a sociolinguistic issue" and "more conservative writers condemn it as 'vulgar' or 'indolent'." However, by the end of the century "it is fully

established after /r/ except in some unstressed syllables". Yod is deleted after /l/ most commonly when /l/ is preceded by another consonant. In Later Yod Dropping /j/ was lost after alveolars /t, d, n, s, z, l/ and after /θ/. At the end of the 18th century, yod deletion after /t, d, n/ was stigmatised more than its deletion elsewhere. In 1791 Walker (in Lass 1999, vol. III:100) calls *noo* (*new*) and *doo* (*dew*) "corrupt" Londonisms. Another example of yod dropping after /d/, *duke* with and without /j/, is found in an anonymous book called *A Vocabulary of Such Words in the English Language as Are of Dubious or Unsettled Pronunciation* from 1797 and presents "evidence of the type of variability that Sheridan emphasises, but Walker downplays" (Romaine 1999, vol. IV:384). According to Henry Sweet (1908) *enthusiasm* could be pronounced with or without yod. *News* with deleted yod, on the other hand, was regarded by Sweet as "vulgar", even though both pronunciations had been mentioned by Ellis (1869) "without adverse comment" (Romaine 1999, vol. IV:473).

Many words formerly pronounced with /sj/ or /dj/ have undergone a process of assimilation, where /s/ and /j/, /d/ and /j/ influenced each other, and coalesced into /ʃ/ and /ʒ/ respectively, e.g. *sure* (originally /sju:r/), *measure* (originally /'mezjur/). Coalescence of /tj, dj/ to /ʧ, ʤ/ became more common in medial positions from the 18th century, e.g. in *virtue, question, soldier*. On the other hand, some words medially coalesced in the 18th century, e.g. *piteous* or *tedious*, are now pronounced with /t, d/ followed by /j/ or /i/. Coalesced /tj/ in medial positions is confirmed by Robert Nares in 1784 (in Lass 1999, vol. III:65, 122) as he regards /ʧ/ in *-ture, -tune* 'almost universal'. He does not object to spellings like *nater* or *pickter* in literature, which suggest that the /t/ is pronounced hard, but he recommends that the /u/ is pronounced long, i.e. /ne:tju:r/. More than half a century later, this hard /t/ is still in use in *naterally* and *sitiwation* (Dickens, 1857). However, Nares finds initial /ʧ/ in *tune* or *tumult* "somewhat affected", "rather, perhaps, vulgar" and points out that it is not used by "elegant speakers". Strangely enough, he does not comment on coalescence of /dj/, "which is unlikely not to have had a variant /ʤ/" (Lass 1999:122). Northerner Brown reports word-initial coalescence of /dj/ to /ʤ/ in *due, dew* and *duel* in 1700 (in Dobson 1968). A similar development happened with /sj, zj/, also in both directions. Coalescence of medial /sj/ and /zj/ into /ʃ/ and /ʒ/ in words like *tissue, casual, occasion* or *usual*, was finalised in the 17th century. However, the medial /ʃ, ʒ/ in certain words were not used by all speakers. Some

words with present /sju:/, for instance *suit, supreme* or *assume,* were pronounced with /ʃ/ (Bloomfield & Newmark 1963).

As for the historical development of the vowel quality in /ju/, Dobson (1968:712) says that "towards the end of the seventeenth century there was a tendency, which persists in PresE, for the second element of [iu] or more likely [ju:] to be fronted in the direction of [y:]" in stressed syllables. In unstressed syllables [ju:] was shortened to [(j)u] and then to [(j)ə]. /u/ centralisation or fronting has been reported in recent studies, for instance in London (Tollfree 1999:168), Milton Keynes and Reading (Williams and Kerswill 1999:144) or in the Fens (Britain 2005:1011) and is a very widespread feature in the south of England in general (Britain, private communication).

2. Contemporary research in yod pronunciation

The following section will review a variety of theoretical approaches to /ju:/ pronunciation. These are either general observations or empirical studies and range from the strictly linguistic to those which analyse sociolinguistic factors. The opening section discusses the role of yod pronunciation in Received Pronunciation and the acceptability or otherwise of the different variants. There follows a geographical review of yod pronunciation trends for areas in which detailed studies have been conducted. The chapter closes with a number of sociolinguistic findings on yod pronunciation, focusing on factors such as age, gender differences and social class.

Published materials and studies that contain observations of potential /ju:/ pronunciation report on Received Pronunciation, Estuary English and several other regional varieties mainly in terms of preceding phonological context and stress. Trudgill's Norwich study (1974) also takes social class and style into account and Przedlacka's Home Counties project (1997/98) includes considerations of gender and social class. Wells's *LPD Pronunciation Preference Survey 1998* (1999b, 2000) also takes age into account, and Britain et al.'s (2008) studies in the East Anglian Periphery also investigate the following context, the number of syllables in the lexical item, frequency of segmental string and open vs. closed syllable.

2.1 Received Pronunciation and yod

Received Pronunciation (RP), standard non-regional pronunciation with high prestige, originating in the south-east of England, spoken by about 3–5% of the population (Trudgill 1974 and 2002), a product of "a social judgement" (Cruttenden 2001:79), was the only acceptable pronunciation on the BBC in the past. Nowadays the established manner of pronunciation is regarded as "correct" whereas innovative features tend to be "stigmatised". Even though the coalesced pronunciation of *during* or *Tuesday* was noted as early as 1913 by Robert Bridges in his *Tract on English Pronunciation* (Cruttenden 2001:79, Ramsaran 1990:187), it still has not been fully accepted in RP. As a result of social pressure, in particular a younger RP speaker may use the traditional form, for instance /djʊərɪŋ/ for *during*, in a formal situation and the innovative form /ʤʊərɪŋ/ in a casual situation. Whereas Gimson (1989:91), Wells (1982:279–283) and Cruttenden (2001:80) distinguish several types

of RP, Trudgill (2002:175) argues that "near-RP" is not RP any more. Nevertheless, it seems that the criteria for a feature to qualify as RP are rather complex. The distinctions described by the above linguists are either of social or regional character and are partly connected with age. The most common, neutral and unmarked type, which is often associated with the BBC pronunciation, is called "General RP" (Gimson 1989 and Cruttenden 2001) or "Mainstream RP" (Wells 1982). RP with social attributes, i.e. spoken by upper classes and possibly also by older generations is labelled "Conservative RP" by Gimson, "Upper-crust RP" by Wells and "Refined RP" by Cruttenden. Gimson describes a type of RP which he calls "Advanced RP". It is spoken by younger people of a certain class and contains innovations, which, he predicts, will with time most likely become part of General RP. Then Wells also defines "adoptive RP", which is RP spoken by adults who did not speak it as children. The so called "near-RP" (Wells) or "Regional RP" (Cruttenden) is General RP with one or a few non-stigmatised regional features, often unnoticed even by other RP speakers. So London Regional RP, for example, has some modified features of Cockney. There is said to be competition between RP and Estuary English (see 2.2), which is adopted especially by young people who wish to avoid the stigma of speaking "posh" and to gain "street credibility" (Cruttenden 2001:81) or simply do not want to be noticed or to stick out by speaking differently.
The pronunciation of yod in phonetic handbooks and in articles on RP will be discussed separately because the former have a slightly prescriptive character, and are therefore more conservative, while the latter are more descriptive and comment on the acceptable ongoing changes. Each author is discussed separately because the types of observation or circumscription of the yod context by different authors vary.

In the phonetic handbooks and other literature, the occurrence of the glide /j/ followed by /u:/ is described in connection with the preceding consonant, where sometimes no clear distinction between stressed and unstressed environment is made. According to Jones (1972:210), /j/ is never inserted after /ʧ/ and /ʤ/, as in *chew* or *June*. Even though these affricates are not directly a subject of this study, as one of the preceding contexts, they occur as the coalesced variants of /t/+/j/ and /d/+/j/. Therefore Jones's observation is relevant, especially because the glide can be heard after /ʧ, ʤ/ when for example *Tuesday* and *during* are pronounced /ʧɪu:zdeɪ/ and /ʤɪu:rɪŋ/. /j/ is regularly inserted after /t, d, n/ and after /l/ preceded by a stressed or semi-stressed vowel, e.g. *tune, due, new, value*. The usage of /j/ varies after /s, z, θ/, e.g. *suit, presume, enthusiasm,* and after /l/ in an initial position or after /l/ preceded by an

unstressed vowel, e.g. *lute, absolute*. Although Jones does not clearly state whether he describes the yod phenomenon in general or in a specific environment, one can assume from the examples that he means stressed syllables, with the exception of /l/ where he specifies the environment. Gimson (1989:213–214) makes a clear distinction between stressed and unstressed syllables when describing the occurrence of yod. He observes variation in Received Pronunciation after /l, s, z, θ/ in stressed syllables, with an increasing tendency to pronounce /j/ after /z, θ/ and to omit it after /s, l/. There is no clear statement about /j/ after /t, d, n/ in stressed syllables. However, the examples suggest yod retention. In unstressed syllables /j/ tends to be coalesced after /t, d, s, z/ but retained in the same context in careful speech and after /l/. Cruttenden (1994:192 and 2001:212) presents the same material as Gimson and adds that /j/ is being increasingly omitted after /n/ in stressed syllables. So, whereas it was not incorrect to omit yod after /l, s, z, θ/ in stressed syllables in 1972, it became common to omit yod after /s, l, n/ by 1994.

Tab. 2.1 Overview of yod pronunciation from phonetic handbooks

preceding consonant	*Jones, 1972*	*Gimson, 1989*		*Cruttenden, 1994 and 2001*	
		stressed	*unstressed*	*stressed*	*unstressed*
t	j	j	j (cs), ʧ	j	j (cs), ʧ
d	j	j	j (cs), ʤ	j	j (cs), ʤ
n	j	j		variation, -	
l after sv	j		j		j
l word-initially, before uv	variation	variation, -		variation, -	
s	variation	variation, -	j (cs), ʃ	variation, -	j (cs), ʃ
z	variation	variation, j	j (cs), ʒ	variation, j	j (cs), ʒ
θ	variation	variation, j		variation, j	

Key: j = yod retention, - = yod dropping, sv = stressed vowel, uv = unstressed vowel, cs = careful speech

Collins and Mees (2003:89) use the term non-regional pronunciation (NRP) in their description of the English pronunciation. According to them, yod dropping is typical after /s/ in NRP. They also claim that words like *Tuesday* and *dual* are nowadays typically pronounced /ʧu:zdeɪ/ and /ʤu:əl/. However, they point out that some members of the older generations consider these forms 'lazy speech' and thus there is still some stigma attached, especially to the coalesced forms, at least word-initially.

Observations on yod pronunciation in RP show that the change is well in progress as there is no uniform pronunciation even in RP and the opinions on the acceptability of a certain yod pronunciation in different environments vary. Wells (1982:207) says that there is variability of yod retention and yod dropping after /s, z, l, θ/ in stressed syllables and consistent yod retention after /n, t, d/. He observes coalescence of /tj, dj/ to /ʧ, ʤ/ in stressed syllables in colloquial speech, which is, however, often felt to be vulgar. Yod dropping in unstressed syllables is less frequent than in stressed syllables after the same alveolar consonant. Ramsaran (1990:184), an RP speaker herself, suggests that there is a continuing trend of yod dropping after alveolars. In a long-lasting process, yod has been dropped after palatals, palato-alveolars and /l/ following a consonant. It is now being dropped also after /l/ word-initially in stressed syllables, after /s/ and /z/ in stressed syllables, with the exception of learned words and in conservative speech. Yod after /s/ and /z/ following a stressed vowel, i.e. in unstressed syllables, is more commonly coalesced to /ʃ/ and /ʒ/ than dropped. Yod is retained after /t, d, n/ in stressed syllables. Ramsaran points out that even though coalescence can be heard with many speakers, there is a "considerable resistance" to coalescence of /tj/ and /dj/ "both in terms of production and acceptability" word-initially or before a stressed vowel (Ramsaran 1990:187). Cruttenden (2001:82–83) divides the current changes in RP over the last 70 years into three groups: changes almost complete, changes well established and recent innovations. Yod dropping after /l, s, z/ in stressed syllables and regular coalescence of /tj, dj/ to /ʧ, ʤ/ in unstressed syllables are categorised as "changes almost complete" and are "typical of the large majority of speakers of General RP" (Cruttenden 2001:82). Yod dropping after /n/ in stressed syllables and coalescence of /tj, dj/ to /ʧ, ʤ/ in stressed syllables are "changes well-established", which are "typical of a majority of speakers of General RP" (Cruttenden 2001:82). There are no recent innovations listed in connection with yod pronunciation. Altendorf (2003:68) claims, too, that /j/ can be dropped after /s, z, l, θ/ in stressed syllables whereas the acceptability of yod dropping or coalescence after /t, d, n/ is still questionable in RP. This is also confirmed by Bauer's investigation (1994:104) of the *English Pronouncing Dictionary* (1988), where yod retention is the only possibility after /t, d, n/ and variability is allowed after /s, θ, l/, but yod retention is still preferred after /l/.

Tab. 2.2 Preference of yod pronunciation in stressed syllables in RP according to various authors

	Wells (1982)	Bauer (1988)*	Ramsaran (1990)	Cruttenden (2001)	Altendorf (2003)
t	j (ʧ vulgar)	j	j (ʧ resistance)	ʧ	j
d	j (ʤ vulgar)	j	j (ʤ resistance)	ʤ	j
n	j	j	j	-	j
l	variation	variation, j	-	-	-
s	variation	variation	-	-	-
z	variation		-	-	-
θ	variation	variation			-

* from Bauer (1994:104) based on the *English Pronouncing Dictionary* (1988)

Key: j = yod retention, - = yod dropping, variation = both yod retention and yod dropping

Tab. 2.3 Preference of yod pronunciation in unstressed syllables in RP according to various authors

	Wells (1982)	Ramsaran (1990)	Cruttenden (2001)
t	j	ʧ	ʧ
d	j	ʤ	ʤ
n	j		
s	j	ʃ	
z		ʒ	

Key: j = yod retention

Even though all the observations describe trends in General RP, the obvious differences (see tables 2.2, 2.3) are evidence of an ongoing, fast change in yod pronunciation, and the comments suggest some degree of social stigmatisation before a change has been fully accepted. Whereas yod pronunciation after /l, s, z, θ/ varied in the 1980s, yod dropping established itself in the 1990s and such pronunciation does not seem to be stigmatised any more. On the contrary, yod retention after /l, s, z, θ/ might sound characteristic of older RP speakers and too conservative. The situation with yod dropping after /n/ is not so straightforward. Even though Cruttenden (2001) says that yod dropping after /n/ is becoming common, this pronunciation still carries some social stigma. A similar development can be seen after /t, d/, where possible yod dropping is replaced by coalescence. Coalescence after /t, d/ was felt to be vulgar in 1982, there was a certain resistance to it in 1990, but Cruttenden claims that such coalescence is common in 2001. Nevertheless, Altendorf still reports only yod retention after /t, d, n/ for RP speakers as acceptable pronunciation in 2003. On the other hand, linguists seem to agree that coalescence after /t, d/ in unstressed syllables is now common in RP.

Interesting results are presented in Hannisdal's (2006) recent empirical study on RP in the speech of television newsreaders based on thirty subjects. From the 617 potential /tju/ and /dju/ items (25 different words) with main stress, 46% were pronounced with coalescence. This outcome was influenced mainly by 83% coalescence in *during*, of which there were 171 occurrences. Hannisdal speculates about frequency-based lexical diffusion here. Nevertheless, when *during* is excluded, there is still a high rate (32%) of coalescence in the remaining 24 words, which would support Cruttenden's theory about changes well established. Even though yod dropping or coalescence in other environments were not the subject of Hannisdal's study, she reports that no cases of dropping in /tj/ and /dj/ words occurred. She also notes that words like *assume, presumably* and *consumer* are pronounced mainly with retained yod, occasionally with deleted yod but never with coalescence.

As for the observations on the vowel quality of /ju/ in RP, several phoneticians including Wells (1982:294), Henton (1983) and Bauer (1994) note gradual fronting of /u:/ towards [ʉː]. According to Cruttenden (2001), fronting of /u:/ to [ʉː] is a well-established change and Bauer considers this change to be "probably one of the most dramatic" in present day RP. However, fronting of /u:/ combined with unrounding to [ɨː] is a recent innovation and thus not yet a typical feature of a majority of RP speakers. Wells (1982:208) points out that /u/ centralisation is a possible development of early /ɪu/, in which the falling diphthong is monophthongised to a central [ʉ]. Ramsaran observes that /ʊ/ following /j/ is often pronounced /ə/ among young speakers and many observers consider this and coalescence " 'ignorant', 'sub-standard', 'incorrect', 'careless' " (Ramsaran 1990:189).

2.2 Estuary English

The term Estuary English denotes an accent originating in the Thames estuary, which has spread further and has become very popular, especially with young speakers. It is sometimes placed between RP and London speech because it lies on a phonetic continuum between the two. Coalescence of yod is a typical feature of Estuary English. /j/ is coalesced after /t/ and /d/ in both stressed and unstressed syllables, regardless of whether it occurs word-initially, word-finally or word-internally. The word-initial coalescence of /tj, dj/ distinguishes Estuary English from RP, where it is not fully acceptable. /j/ tends to be dropped after /s, z, l/ in stressed syllables. However, Estuary English speakers have recognised yod dropping as

"undesirable" and some argue that they have therefore turned fairly solidly to using yod, in certain words even more consistently than RP speakers (Coggle 1993:51 in Haenni 1999:18, Wells 1992, Altendorf 2003). For discussion on the concept of Estuary English and bibliography see http://www.phon.ucl.ac.uk/home/estuary.

In the Home Counties project carried out by Przedlacka in 1997/1998 (in Ryfa 2003), teenage informants took part in a sociophonetic research project. Eight males and eight females were recruited both from selective and non-selective schools in Buckinghamshire, Essex, Kent and Surrey, counties which are supposed to be the area where Estuary English is spoken. The results showed only minor differences in yod dropping with regard to county, gender or social class. The words studied were *Tuesday, new* (twice) and *suit* as the concept was based on the Survey of English Dialects (SED). 60% yod retention was reported in *new*, half of the informants retained yod in *Tuesday* and only three informants retained it in *suit*. Coalescence is not mentioned. These results were compared with two 13-year-old RP speakers, who kept yod in *new* and *Tuesday* and dropped it in *suit* (Przedlacka 2001).

2.3 *LPD Pronunciation Preference Survey 1998*

In 1998 Wells carried out a *Pronunciation Preference Survey* (Wells 1999a) based on almost 2000 informants from all over Great Britain (Tab. 2.4).

Tab. 2.4 *LPD Pronunciation Preference Survey 1998*

preceding context		**yod retention**	**yod coalescence**	**yod dropping**
stressed syllables				
l	*lure*	58 %	-	42 %
t	*tune*	64 %	35 %	1 %
d	*during*	65 %	34 %	2 %
weak syllables				
t	*situation*	65 %	35 %	0 %
t	*perpetual*	57 %	42 %	0 %
d	*schedule*	79 %	20 %	0 %
d	*gradually*	49 %	51 %	0 %

This survey shows that in general people prefer retention of yod after /t, d, l/ to coalescence or dropping in both stressed and unstressed syllables. After /t, d/ coalescence is also frequent in stressed and unstressed syllables. Minimal yod dropping occurs after /t, d/ in stressed syllables

but not in unstressed ones. Informants favour /ʤ/ more in the function-word *during* than in the content-word *schedule*. Wells speculates that coalescence might be accepted more easily in familiar words as opposed to learned ones.

2.4 Regional accents in England

Yod pronunciation has not been studied systematically and empirically with regard to all linguistic aspects. That is impossible in free speech, as no speaker will ever utter the necessary potential yod words with all the linguistic features one would like to study. It also excludes comparison of data in any complex way. So far, yod has been considered as one of the variables examined in a study of a particular accent, or the research has concentrated on a particular word, which has been recorded in different parts of England and can be found in a linguistic atlas. The most detailed attention to yod pronunciation can be found in the studies by Britain, Amos and Spurling, which cover the Fens, Mersea Island and Ipswich respectively. This chapter presents findings from available studies on yod pronunciation in England and also yod words from linguistic atlases.

In London Wells (1982) observes yod dropping in Near-RP in stressed syllables, e.g. *new, duke*, and in unstressed syllables, e.g. *executive, manufacture*. Even more yod dropping after /t, d, n/ occurs in Cockney, which Matthews (1938) and Sivertsen (1960) (both mentioned in Wells 1982) describe as a norm. In Beaken's study (1971) of primary schoolchildren from East London, no yod dropping after /t, d/ is recorded; the typical pronunciations of *tune* and *duke* are with /ʧ/ and /ʤ/· Coalescence is also reported by Wells (1982) as the typical Popular London speech realisation of /ju/ words. However, since coalescence is stigmatised, hypercorrection with /tj, dj/ in words like *chew* or *June* occurs. Hurford's study (1967, mentioned in Wells 1982) of a family from East London shows variation between /tj/ and /t/ in *tune*. No yod dropping after /t, d/ is observed in the speech of adults from South London in Bowyer's study (1973, mentioned in Wells 1982). *Tune* is pronounced with /tj/ or /ʧ/ and similarly, *new* is mostly pronounced with /nj/. Tollfree (1999), using data collected in 1990–4 in East London middle class neighbourhoods from 90 informants, reports that there is variable yod dropping in broad speech among all speakers after /h, n, m, s, d, t, l, b/ but not after /p, f, v, k, g/.

The only mention of yod pronunciation in the *Essex Dialect Dictionary* is that words like *blue, Susan* and *you* were all pronounced with retained yod "*ble-ew, Se-usan, ye-ew*" and "*value* is sometimes *voller, valuation volleration*" (Gepp 1969:150).

An apparent time study by Amos (2006) in the traditionally yod-dropping area of Mersea Island, Essex, investigates the extent of yod dropping and coalescence across two generations of islanders. The spontaneous fluent speech of sixteen informants, half males, half females, was analysed. In all preceding contexts except for /t, d/ the older informants, aged 53–75, dropped yod in 61% of 356 tokens, while the younger informants did so only in 9% of 290 tokens. The young generation retains yod 100% after /f, v, k, g, h, l/, which suggests attrition of yod dropping on Mersea Island. Yod after /t/ is retained in 13%, coalesced in 80% and dropped in 7%. Yod after /d/ is retained in 9%, coalesced in 52% and dropped in 40%. However, there is no yod dropping after /t, d/ among young speakers; the common realisation is coalescence: 90% after /t/ and 100% after /d/. The most frequent realisation among older speakers is coalescence after /t/ and yod dropping after /d/, over 70% in both environments. Yod retention is the more common variant in stressed and unstressed syllables after all but /t, d/, where coalescence dominates, for the young generation. For the old generation yod dropping is more common in stressed syllables, also after /t, d/, and yod retention is more usual in unstressed syllables after all but /t, d/.

East Anglia in general is a typical yod-dropping area. Yod is dropped not only after alveolars but also after most other consonants. In 1974 Trudgill interviewed 60 informants in his home town Norwich, Norfolk. He distinguishes two variants of the /ju:/ variable: the presence or absence of the glide /j/. The variable was studied in different preceding contexts and in four styles from the most careful to the most casual: word list (15 items), reading passage (13 items), formal speech and casual speech. On the basis of Trudgill's findings a generalised implicational scale for yod dropping in stressed syllables in words of daily use could be as follows: s > n > d > t > v > f > m > b > p > k
This means that yod is more likely to be dropped after /s/ than after /n/ and so on.
Trudgill also notes that "education is now [ɛʤəkæiʃn] although it was formerly [ɛdəke:ʃn]" (Trudgill 1999).

Suffolk is also a traditional yod-dropping area. A study on yod dropping carried out by Spurling (2004, in Amos 2006) in Ipswich compares two generations of speakers in two styles: casual speech and a reading passage. The younger generation shows less yod dropping than the older generation. Nevertheless, the younger informants still drop /j/ in approximately 60 % of cases. The RP forms /tj, dj/ do not normally occur after /t, d/. While the older informants drop /j/ after /t, d/, coalescence has replaced yod dropping among the younger informants in more than 50 %. Spurling's implicational scale for yod dropping is as follows:
s > n > h > z > f > m > b > d > t > v > p > k > g
Compared to Norwich, yod dropping is more frequent after /f, m, b/ than after /d, t, v/ in Ipswich.

The following figures (Britain et al. 2008) show yod dropping across different preceding contexts (Fig. 2.1) and coalescence in the Fens, Mersea and Ipswich (Fig. 2.2):

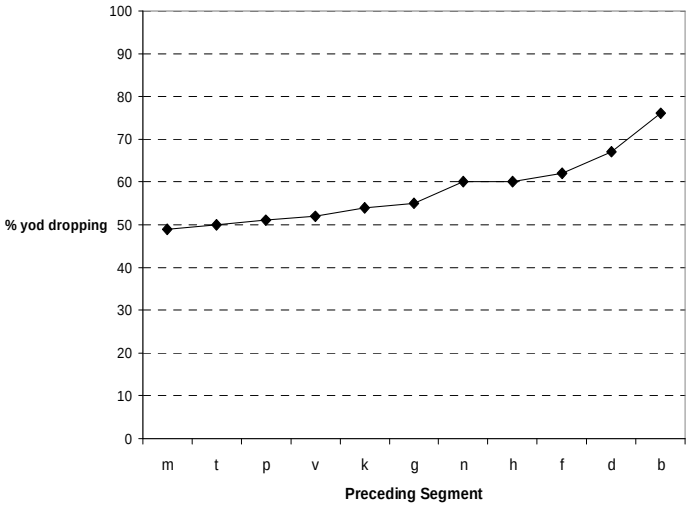


Fig. 2.1 *Yod-Dropping by Preceding Phonological Environment*

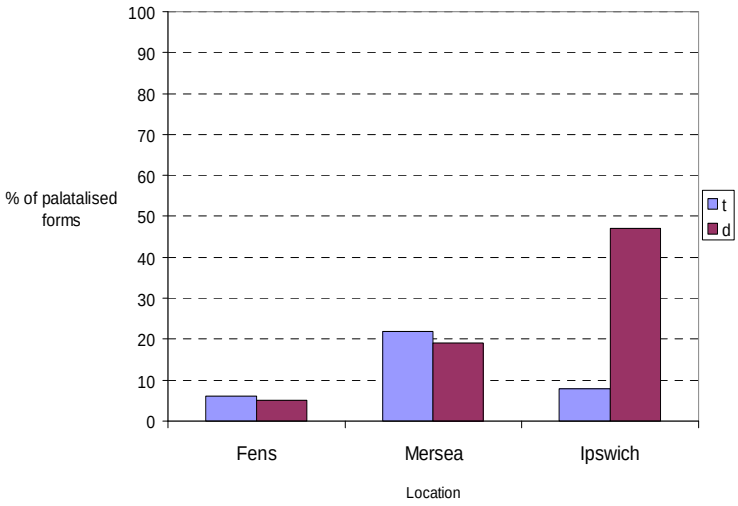


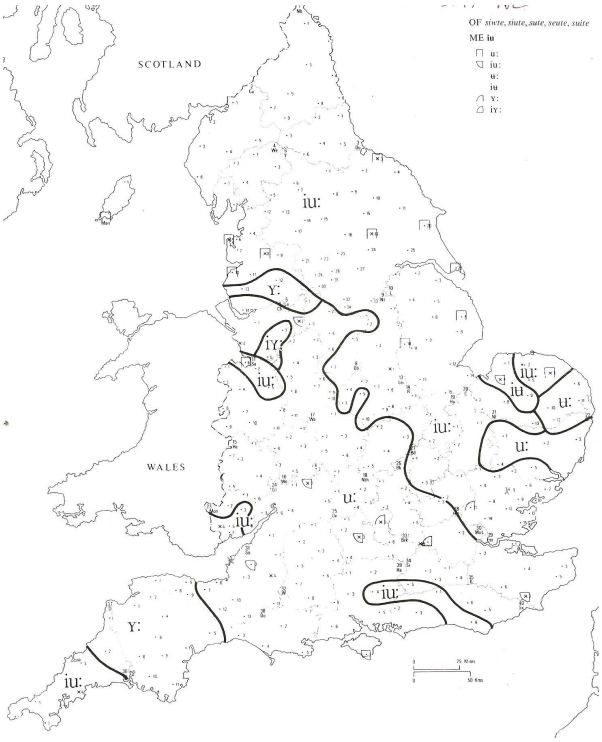
Fig. 2.2 *Palatalisation of (ju) by Location*

Docherty and Foulkes (1999) report that "palatalisation is very common before /j/", (e.g. [ʃtjʉ:] for *stew*), after consonants /s, z, t, d/ in Derby, Derbyshire. They collected data from 32 informants: four males and females in two age groups (14–27 and 45–67) and from two social classes (working and middle).
Recordings of conversational speech, a reading passage, a word list and a list of word pairs by 57 informants of both sexes, from middle and working social class and from four age groups (teenagers, young, middle-aged and elderly) were analysed in 1984 in the West Midlands.

Mathisen (1999) notes that yod dropping is used, especially in *new*. It occurs more often in teenage speech but can also be heard among the elderly, and in reading.

The maps below show five words researched in the Survey of English Dialects (SED): *suit, new, Tuesday, tune* (Orton 1978); *dew* (Upton&Widdowson 1996, based on SED with updates).

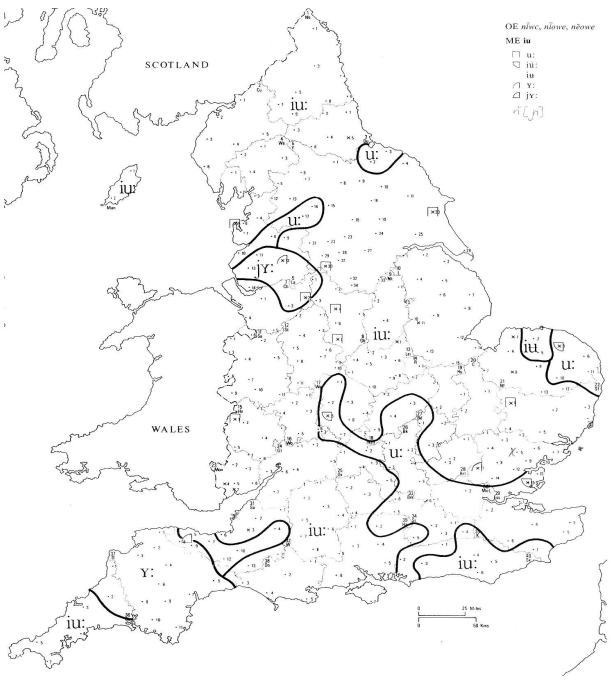
SUIT



The pronunciation of *suit* (Orton 1978) very roughly divides England diagonally from Lancashire to the Thames Estuary into two parts: north of this line yod in *suit* is retained and south of this line it is dropped. There are larger areas in the south-western part beyond the dividing line which retain yod in *suit*, e.g. Cornwall, Sussex or Hampshire; and areas in the south-western part which drop yod, e.g. East Anglia.

Fig. 2.3 Distribution of pronunciation of *suit* (Orton 1978)

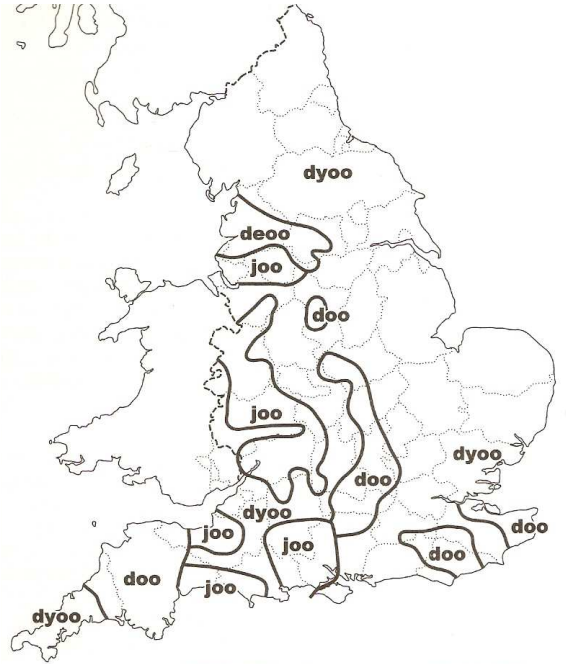
NEW



New (Orton 1978) is pronounced with retained yod in most regional accents in England. Yod is traditionally dropped in the eastern part of Norfolk, but the biggest yod-dropping area for *new* are larger sections of Greater London, Kent, Surrey, Buckinghamshire and Northamptonshire.

Fig. 2.4 Distribution of pronunciation of *new* (Orton 1978)

DEW



Dew (Upton&Widdowson 1996) is also pronounced with retained yod in most accents. However, the yod-dropping areas are partly different from the areas for *new*. The biggest yod-dropping areas for *dew* are Kent, Sussex, Devon, Berkshire, Buckinghamshire and the eastern parts of Northamptonshire and Leicestershire. Coalesced pronunciation of *dew* is recorded for Greater Manchester and then down from Cheshire to Dorset.

Fig. 2.5 Distribution of pronunciation of *dew* (Upton&Widdowson 1996)

The majority of traditional accents in England seems to retain yod in *Tuesday* and *tune* (Orton 1978). The yod-retaining area of *new* roughly corresponds to the yod-retaining area of *tune* and *Tuesday*. The rest of the country is divided into smaller and bigger parts where one of the three variants, with retained, coalesced or dropped yod, is spoken.

The findings on yod retention and yod dropping in *suit* and *new* are quite understandably very different. However, one might expect an analogical similarity of the pronunciation of *tune* and *Tuesday*. The maps for *Tuesday* and *tune* from 1978 show that it is dangerous to generalise about the pronunciation of yod. Even though potential /ju/ in both words has the same preceding context and occurs in a stressed syllable, the pronunciation boundaries for these two words vary, especially in the West Midlands.

TUESDAY

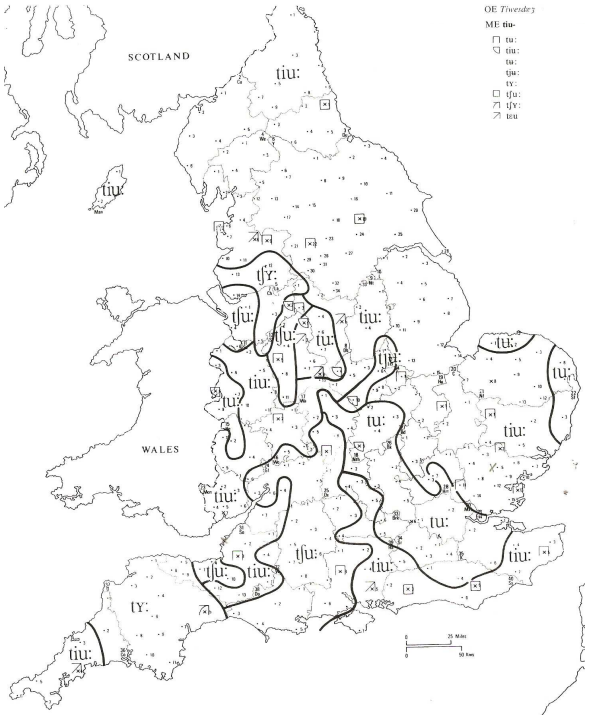


Fig. 2.6 Distribution of pronunciation of *Tuesday* (Orton 1978)

TUNE

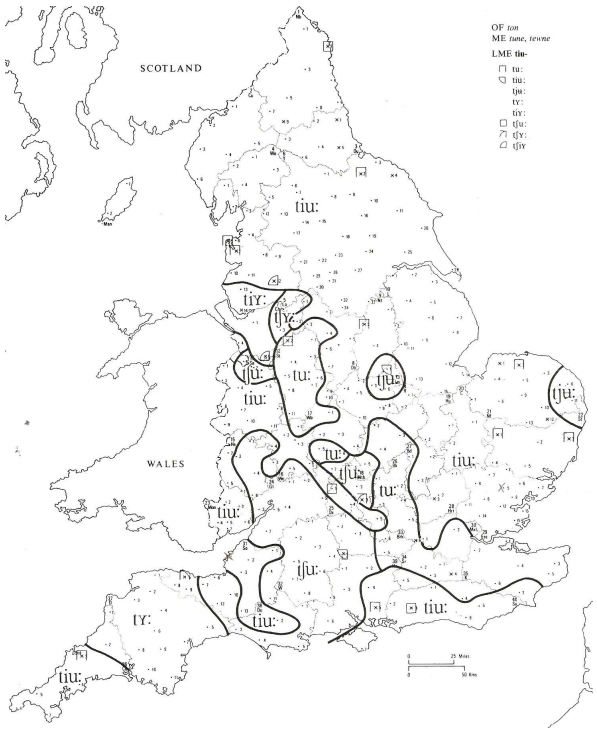


Fig. 2.7 Distribution of pronunciation of *tune* (Orton 1978)

2.5 Other varieties of English

This section summarises findings on yod pronunciation outside England. The reports are based more on general observations in chosen environments rather than on systematic empirical research, which makes it impossible to make valid comparisons. Some findings are only general, some relate to stressed or unstressed syllables and some only to the preceding context. Sometimes there is only a comment on whether a particular yod variant can be heard or whether a particular yod variant is acceptable.

Yod dropping after /l/ and /s/, e.g. *lure*, *suit*, is reported as common for most speakers in Scotland. Coalescence seems to be limited compared to other accents of British English; for instance, *statue* is commonly pronounced with a glottal stop and /j/ (Wells 1982). On the other hand, Wells's results from 1998 show that coalescence in *tune* is most readily accepted in Scotland (49%) in contrast to Wales (16%) (Wells 1999b, 2000). Stuart-Smith (1999) reports common yod dropping after /s, l/ but only rarely in other environments in Glasgow. In addition, she notes that some speakers still keep /tj/ in words like *nature*, which had undergone coalescence in RP long ago. Her sample consists of 32 informants, males and females, adults and children from two broadly different social and regional backgrounds, recorded in 1997.

Different parts of Ireland favour different yod variants. While generalised yod dropping in certain environments is observed in the south of Ireland, /j/ is normally retained in *tune* and *dew* in the midlands. In Dublin coalescence in stressed syllables is common not only in popular speech but also in conservative and educated speech, e.g. *dew, due, tune*. Yod dropping is frequent in unstressed syllables but can also be heard in stressed ones, e.g. *nude* (Wells 1982). McCafferty (1999) reports that no yod dropping occurs in (London)Derry English, a variety of Northern Ireland English. His study was carried out in 1994–5 among 59 teenagers and 48 adults.

The situation with yod pronunciation in South Africa is similar to England. Yod is generally dropped in *suit* or *assume*, yod retention in this environment is considered conservative. Words like *tune* and *duke* retain yod, but with broad variants of /ʧ, ʤ/(Wells 1982:vol.3). In Australian English, coalescence was less common in 1975 among speakers from higher social classes (Bernard 1975). This finding is still relevant ten years later and coalescence is reported

more frequently among males and teenagers in Sydney (Horwath 1985). There is no mention of coalescence in Bauer's study of Australian English based on the *Macquarie Dictionary* (1981), which says that /j/ is retained after /n, d, t/, dropped after /s/ and there is variability after /θ, l/ with yod dropping being the first choice. Turner (1994) reports both retention and coalescence in *tune, dune, assume* and *resume*. New Zealand English has more coalescence, e.g. in *assume, presume, Tuesday* and *duty*, and more dropping, especially after /θ, n/, compared to RP (Bauer in Burchfield 1994:388). Bauer (1994:128) also reports that /j/ after /n/ tends to be dropped more often than after /t, d/. However, it is possible that there is some correlation between /t, d/ coalescence and yod dropping after /n/. Yod dropping is widespread in Canada, although pronunciation with yod enjoys higher prestige. A survey showed that half the informants pronounce *student* with yod and half without yod, but two thirds of the informants retain yod in *new*. Yod coalescence, e.g. in *tune*, is reported as common in the area from Thunder Bay to Saskatchewan (Wells 1982:vol.3). The trend concerning yod pronunciation in General American is to omit yod after /s, z, θ, l, n, d, t/ in stressed syllables. However, usage is not entirely uniform, especially after /n, d, t/ yod retention is also possible. While Mencken (1936, in Bauer 1994) observed that pronunciations with yod would sound affected in most parts of America, Wells (1982) says that yod dropping in stressed syllables after /t, d, n/ is subject to pressure from school teachers who prescribe yod retention as correct. Yod dropping in General American is reported for instance in Wells (1982:207), Ramsaran (1990:184), Bauer (1994:103–105) based on the *American Heritage Dictionary* (1976) and Cruttenden (1994). In unstressed syllables, there is a tendency to coalescence in combination with a schwa instead of /u/. Wells (1982:248) predicted coalescence even with /n/ and /l/ in words like *annual* [ænjəl] or *failure* [feɪʎə]. In most varieties of English, yod tends to be retained after /t, d, n/ and dropped after /s, z, l, θ/. Yod dropping is the prestigious variant in America, yod retention in Canada. Yod coalescence has become more acceptable in many accents, especially after /t, d/.

2.6 Sociolinguistic findings on yod pronunciation

This section presents findings on yod pronunciation in connection with social factors such as age, sex and social class. Unfortunately, the most detailed studies, by Britain et al., research those areas of England where yod has been traditionally dropped, often not only after alveolars. Most other studies deal only marginally with yod. The section closes with a brief discussion of socio-political aspects of yod pronunciation.

Age

Age is a useful factor for observing language changes in time in an apparent-time study. Younger speakers tend to have a higher frequency of the innovative variants, therefore in traditionally yod-retaining areas one would expect to hear more coalescence and/or yod dropping among younger generations. This assumption is confirmed by Wells's LPD survey which shows that coalescence of /tj, dj/ to /tʃ, dʒ/ in stressed and unstressed syllables occurs in all age groups and decreases with age in Britain (Tab. 2.5). Coalescence tends to be more frequent in unstressed syllables (Wells 2000).

Tab. 2.5 Coalescence of /tj, dj/ to /tʃ, dʒ/ across age groups in ***British English Pronunciation Preferences*** (Wells 2000)

age coalesced word	under 25	25–44	45–64	over 65
perpetual	57 %	52 %	32 %	23 %
situation	60 %	43 %	25 %	16 %
tune	61 %	42 %	22 %	10 %
gradually	70 %	59 %	40 %	30 %
schedule	35 %	23 %	13 %	8 %
during	58 %	36 %	23 %	15 %

However, the situation is different in traditionally yod-dropping areas, described below, where yod dropping is not an innovative feature, possibly in contrast to coalescence. On Mersea Island, Essex, older people (aged 53–75) mostly drop yod, whereas younger people (aged 19–25) retain yod by a vast majority in all phonological environments except for /t, d/ (Tab. 2.6). Old people use coalescence after /t/ and yod dropping after /d/ in most tokens, young people never use yod dropping after either of these sounds and mostly use coalescence (Amos 2006).

Tab. 2.6 Yod pronunciation across two generations on Mersea Island (Amos 2006)

	younger generation (19–25)				older generation (53–75)		
preceding context	*retention*	*coalescence*	*dropping*		*retention*	*coalescence*	*dropping*
t	10 %	90 %	0 %		19 %	72 %	9 %
d	0 %	100 %	0 %		16 %	12 %	72 %
other	91 %	-	9 %		39 %	-	61 %

In Ipswich, Suffolk, people over fifty drop yod in 98%, whereas younger people (aged 18–29) omit yod only in 60% of cases. Old people show no yod coalescence after /t, d/ unlike younger people (Spurling in Britain et al. 2008). In the Fens, on the western edge of East Anglia, people over 50 drop yod in about 90% and younger people (aged 18–29) omit yod in over 80% of cases (Fig. 2.8) (Britain in Britain et al. 2008).

Yod dropping across age

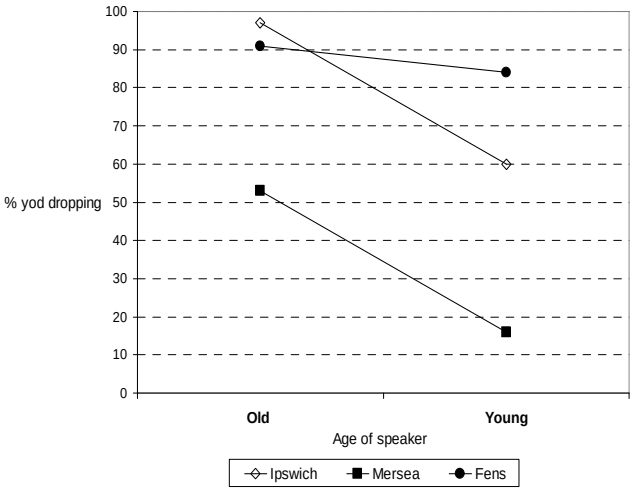


Fig. 2.8 The Attrition of Yod-Dropping in East Anglia across Apparent Time (Britain et al. 2008)

Yod dropping across preceding context

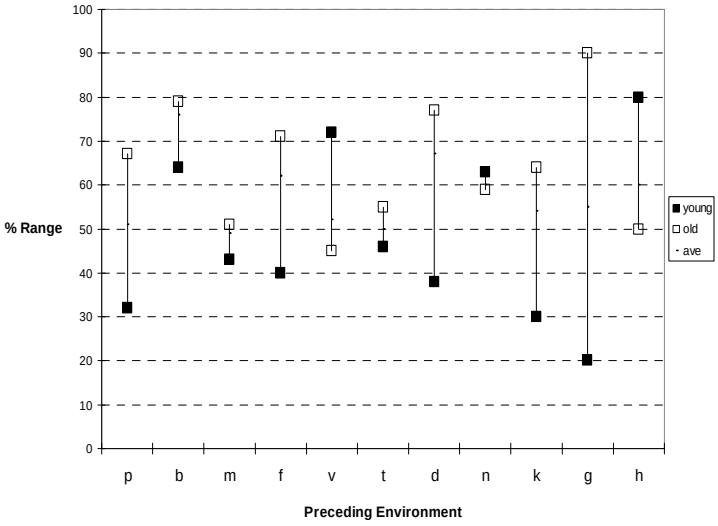


Fig. 2.9 Difference between old and young by preceding phonological environment (Britain et al. 2008)

Figures 2.8, 2.9 and 2.10 also confirm the hypothesis about traditionally yod-dropping areas. While traditional yod dropping is decreasing (except after /v, n, h/, see Fig. 2.9) among younger people, yod coalescence after /t, d/ is booming, particularly in Ipswich and Mersea (Fig. 2.11).

Sex

Hannisdal's study of selected RP features of TV newsreaders shows that the frequency of coalescence does not confirm the hypothesis that males have more non-standard forms than females, unlike other features which she studied, for example t-voicing and smoothing. The formal speech of male subjects contained 49% coalesced forms compared to 46% coalesced forms among female subjects. Hannisdal speculates that this insignificant difference in the use of coalescence between sexes indicates "a shift in the evaluative status of this feature" (2006:216), i.e. a slight reduction in the perceived importance of yod retention. A very similar

result appears in Przedlacka's Home Counties project (in Ryfa 2003:27) in connection with yod dropping. Her study shows only minor differences in yod dropping among eight teenage boys and eight teenage girls from different areas, "the supposed territory of Estuary English", where more dropping (no figures given) is reported among boys.

The following studies are based on areas where yod dropping has a tradition; they therefore concentrate on the phenomenon of yod attrition. Amos (2006) reports that old females drop yod more often than old males and young females retain yod more often than young males. This result suggests that women tend to prefer the more common variant of a vernacular than men, since yod dropping is more common among the old generation and yod retention among the young generation. Or, according to general findings on sex differences, women tend to use the standard form more than men. Older males have slightly more coalescence after /t, d/ (11%) than older females (7%) but younger females coalesce /t/ and /d/ in almost 70% while younger males only in over 50%.

Tab. 2.7 Yod pronunciation across age and sex on Mersea Island (Amos 2006)

	younger generation (19–25)			older generation (53–75)	
	yod retention	*yod dropping*		*yod retention*	*yod dropping*
male	86 %	14 %		42 %	57 %
female	98 %	2 %		31 %	69 %

Spurling (in Britain et al. 2008) finds slightly more yod dropping with older males than with older females but about 10% more yod dropping with younger females than younger males in Ipswich. Young males have about 35% coalescence after /t, d/ while young females have it in almost 40% of cases. Britain (Britain et al. 2008) says that men have less yod dropping (about 80%) than women (almost 100%) in the Fens. Older informants have about 8% coalescence, younger males have about 9% and younger females do not have coalescence at all.

Yod dropping across age and gender

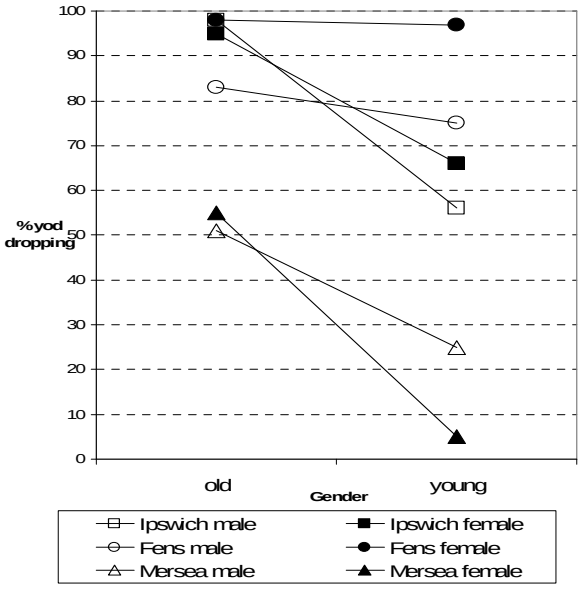


Fig. 2.10 Yod-Dropping by Age and Gender across East Anglia (Britain et al. 2008)

Coalescence across age and gender

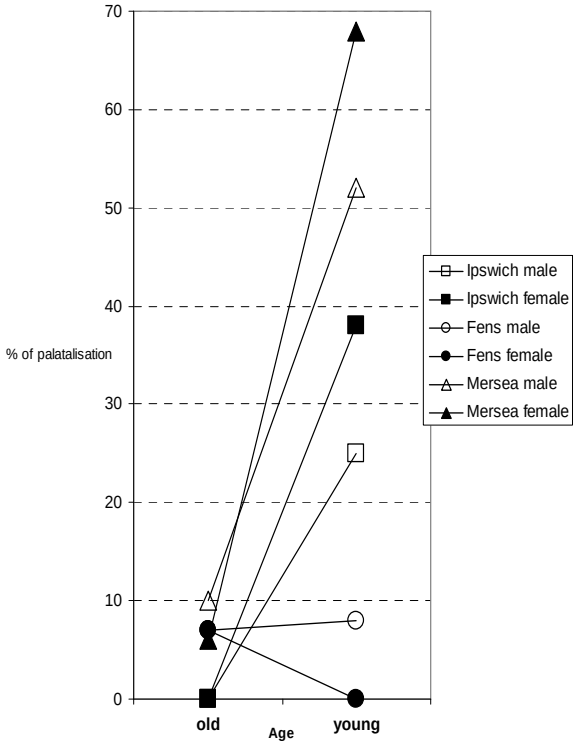


Fig. 2.11 Increasing palatalisation of (tju) and (dju) across three East Anglian locations (Britain et al. 2008)

Whereas the age differences in traditionally yod-dropping areas above show a clear trend, the situation concerning gender is more varied. In the Fens, older women use noticeably more of the traditional pronunciation than men; the differences between men and women in the other two areas are smaller, but both men and women in all these areas drop yod in more than 50% of the cases cases. The gender differences in the use of coalescence among older informants are not great, both men and women having less than 10% in their speech. The gender differences in yod pronunciation among young speakers are greater, but the trends are not identical in all areas either. Yod dropping is more frequent among young women in the Fens and Ipswich but not in Mersea. Coalescence is more frequent among young women in Mersea and Ipswich but not in the Fens.

Social class

As yod retention is still the prestigious variant in England, one might assume that most yod dropping and coalescence is heard among working classes. This was probably the case some decades ago as documented below. In South London, adults from lower social classes pronounce *tune* with /ʧ/, while adults from higher social classes vary their pronunciation of *tune* between /tj/ and /ʧ/. A minority of lower class adults also drops yod in *new* (Bowyer 1973 in Wells 1982). Wells (1982) observes yod dropping after /n/, e.g. in *new*, among members of the working class. This pattern is observed even in a typically yod-dropping area such as East Anglia.

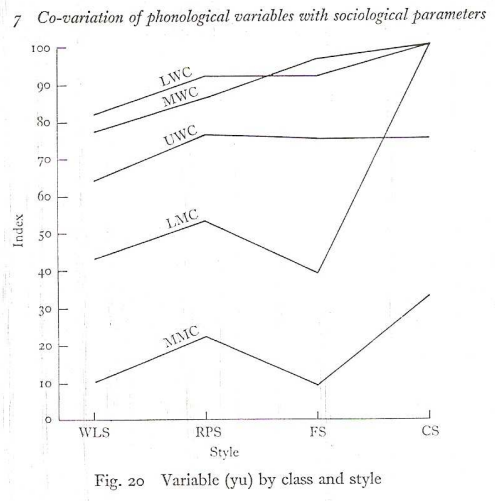


Fig. 2.12 Yod dropping across class and style in Norwich (Trudgill 1974:102)

In Norwich (Trudgill 1974), informants were socially grouped into lower working class, middle working class, upper working class, lower middle class and middle middle class. Formal and casual speech values are not comparable with one another or with the values of the reading styles because the lexical sets are not identical. The most yod dropping (almost 100%) occurs among lower working class informants in casual speech and the least among middle middle class informants in the word list and in formal speech. The amount of yod dropping consistently decreases along the social class spectrum and in the more formal styles (both in reading and speaking) (Fig. 2.12).

> The unusual nature of this variation appears to be due to the fact that [j] does not depend for its frequency of occurrence in this lexical set simply on social class and social context. It also depends on the initial consonant of the item involved (and to some extent on the lexical item itself). (Trudgill 1974:102)

However, the situation has been gradually changing, and what was unthinkable a couple of decades ago now seems to have become normal, generally accepted and even fashionable. This trend is strongly exemplified in the language of broadcasting. Hannisdal's empirical study into the speech of TV newsreaders revealed that coalescence in stressed syllables after /t, d/ is heard in 40% of potential yod words among BBC World and Sky News presenters. On ITV News it is over 60%. "The relatively frequent use of coalesced forms among the news presenters in the present study is a clear indication that yod coalescence in stressed syllables is

becoming an established feature in RP, and is not restricted to casual style.", she concludes (2006:217). On the other hand, Altendorf (2003:98) reports a surprisingly low amount of coalescence, only up to 10%, among teenage female near-RP speakers. As for yod dropping, minimal social class differences are mentioned in Przedlacka's Home Counties project (in Ryfa 2003), where she found only an insignificantly higher amount of yod dropping among working class teenagers than among middle class teenagers.

Political sympathies

"Correct" pronunciation (in the sense of generally accepted) remains a controversial issue in the UK today. Although there has been a strong trend towards acceptance of regional varieties of English, which are now frequently heard on radio and television, a stigma still attaches to forms that are regarded as uneducated and lower class. Here is a quotation from a letter by one of many unhappy members of the public as published in the *Daily Telegraph* on 17 June 2000: "I am tired of hearing presenters – from weather girls to news readers – refer to 'Chewsday' [Tuesday] … The insidious degradation of spoken English saddens me and someone ought to stand up and say 'enough'." The pronunciation of *new* is a focal point for this debate. It has become common among the Labour Party's political opponents to refer to it as "Noo (or Nu) Labour", highlighting New Labour's unwillingness, inability (or both) to pronounce the word *new* correctly. This inability is seen by New Labour's critics as more than a failure to pronounce the yod in the word *new*. Rather the omission of the yod is viewed as symptomatic of a lowering of standards ("dumbing down") not only in pronunciation but in all areas of government responsibility, and particularly in education. The dropping of the yod in *new* is seen as epitomising a central aspect of the New Labour project: its populist appeal to the electorate, its emphasis on its demotic and non-elitist credentials and its rejection of prescriptive pronunciation norms associated with a discredited, class-ridden past, in which schoolchildren were taught elocution in an effort to raise their pronunciation to the level of their social superiors. Elocution was a subject taught in many schools up to the late 60s. By dropping the yod and implying that the dropping of yod is unimportant, New Labour underlines its modernity, its commitment to change and its inclusiveness, its "coolness". While yod dropping may be the most notable example of innovative pronunciation, in this context it is often combined with frequent use of the glottal stop and of coalescence (*Tuesday* pronounced as *Chewsday*), features that not so long ago were strongly stigmatised and even satirised. New Labour's opponents often observe ironically that these features are practised by public school and Oxbridge-educated politicians as a vote-winning strategy. The suggestion

here is that they literally talk down to the voters but are more likely to use standard forms when they are among themselves. The issue of the retention or omission of yod in the word *new* is therefore not just a matter of preference for a given sociolinguistic variable but also has subtle and wide-ranging political and ideological implications. There is a tendency for views on the desirability or non-desirability of conformity to certain pronunciation norms to overlap with the corresponding political and ideological sympathies. The insistence on the importance of "correct" pronunciation and indeed the focus on pronunciation per se seems to go hand in hand with conservative, prescriptive and "elitist" attitudes exemplified in the letter writers' cri de coeur quoted above. The pronunciation of *new* here has a shibboleth function, strictly dividing those whose pronunciation is acceptable from the rest and passing a severe linguistic and non-linguistic judgement on the latter. This is because social linguistic judgements in this context are almost invariably by implication also verdicts.

3. Research design

3.1 Pilot study

The pilot study, carried out in Braintree (Bocking), Essex in October 2005, showed that there is variation of yod pronunciation after alveolars and dentals but not after other consonants as in East Anglia. The sample of the pilot study consisted of nineteen speakers of different age, sex and social background. The original research design contained forty-five words with potential yod in two styles. The results suggested a significant correlation between age and the choice of yod variants, but a bigger sample was needed to make statements about both linguistic and social factors.

3.2 Linguistic factors

To take into account as many linguistic factors as possible that might have some connection with yod pronunciation, a matrix (p. 33) was created: seven items as preceding phonological context across eight groups with a different syllable group. The former are six alveolar consonants and one dental consonant: /d, t, s, z, n, l/ and /θ/, sounds which are involved in a process which Wells calls Later Yod Dropping (1982). One of them is also combined in a common cluster /st/. The latter are five stressed and three unstressed syllable categories:

1) /ju/ in main stress on the first syllable in one-syllable words
2) /ju/ in main stress on the first syllable in two-syllable words
3) /ju/ in main stress on the first syllable in three-syllable words
4) /ju/ in main stress on the second syllable
5) /ju/ in secondary stress
6) /ju/ in unstressed syllable separated from main stress by a syllable
7) /ju/ in unstressed syllable after a stressed syllable
8) /ju/ in unstressed syllable before a stressed syllable.

The justification of the detailed syllable groups is based on the general phonetic theory on vowel length and syllable stress, as stated, e.g., by Daniel Jones (1972:234):

> §870. Rule V. The ‘long’ vowels (and diphthongs) are shorter in unstressed syllables than in stressed syllables. The reduced length is particularly noticeable in syllables preceding the stress. Thus the [...] uə in djuə'rei'ʃn is shorter than the same diphthong in *enduring* in'djuəriŋ.

The shortening of the vowel (or diphthong) length could potentially lead to coalescence or yod dropping, which means that there could be more coalescence or yod dropping in unstressed syllables, i.e. groups six to eight, compared to yod in stressed syllables, i.e. groups one to five.

> § 871. When the unstressed 'long' vowel or diphthong follows the stress, reduction of length is still observable though less marked (Jones, 1972:235).

This, together with §870, suggests that there could be more coalescence or yod dropping in group eight than in group seven, e.g. /ju/ in *education* is more likely to be dropped or coalesced with /d/ than the /ju/ in *module*.

> § 868. Rule IV. 'Long' vowels (and diphthongs) in stressed syllables are also shorter when an unstressed syllable immediately follows in the same word. (Jones, 1972:234)

This includes all words in groups two, three and five, and words with yod in non-final position from group four. According to this rule, /ju/ in words from group one and two-syllable words from group four are less likely to be coalesced or dropped than in the above groups.

> § 886. [..] when a syllable containing a long vowel or diphthong is followed by unstressed syllables, that vowel or diphthong is generally shorter than if the syllable were final or followed by another stressed syllable; moreover, the greater the number of following unstressed syllables the shorter is the stressed vowel (Jones, 1972:237).

In other words, /ju/ in non-final position in words from groups two to seven, is more likely to be coalesced or dropped than /ju/ in all other words on the list. This becomes clear when groups one, two and three are compared. Yod is more likely to be coalesced or dropped in group three than in group two and least likely to occur in group one, e.g. /ju/ in *tune* is less likely to be coalesced with /t/ or dropped than in *Tuesday* and even less likely in *tubular*. This is referred to as "group 1–3 pattern" throughout the thesis.

In many sources, yod variation is described in connection with the preceding context, but a clear definition in terms of stress within the preceding context is not always present or complete. Ramsaran (1990:184) specifies the linguistic environment but the factors are mixed: place or manner of articulation, preceding consonants and stress. Wells (1982) makes

a distinction between yod in stressed and unstressed syllables. Bauer (1994:108) also does so and makes more detailed distinctions between yod in unstressed syllables next to the main stress and yod in unstressed syllables separated from the main stress by another unstressed syllable, which corresponds to my syllable group six.

There are 64 cells in the matrix, but not all of them could have been filled because words of a particular type do not exist or are extremely rare. An effort was made to have at least two words per cell where possible. The intention was to select words which are discussed in the literature on the yod phenomenon, some words with the same morpheme and the rest of the words as common as possible. The wild cards in the pronunciation section of the *Oxford English Dictionary* online were used to exploit all possibilities, i.e. all words with potential /ju/ pronunciation in the particular position. These words, when there were more options, were then checked for frequency in the *British National Corpus* and the more frequent ones were selected to complete the matrix. The notes in the pronunciation section (1998:XVII) of the *New Oxford Dictionary of English* were consulted for reference:

> Generally speaking, native speakers of English do not need information about the pronunciation of ordinary, everyday words [...]
> [...] the principle followed is that pronunciations are given where they are likely to cause problems for the native speaker of English, in particular for foreign words, foreign names, scientific and other specialist terms, rare words, words with unusual stress patterns, and words where there are alternative pronunciations or where there is a dispute about the standard pronunciation.
> [...] The transcriptions reflect pronunciation as it actually is in modern English [...]. It is recognized that, although the English of southern England is the pronunciation given, many variations are heard in standard speech in other parts of the English-speaking world.

The pronunciation of the following words, or of their shorter derivatives, from this study is given in the *New Oxford Dictionary of English* (not necessarily always because of the /ju/ sound):

words that might cause problems		*words with two or more options*	
constitute	1	virtue	1 / 3
voluptuousness*	1	statue	1 / 3
dubious	1	perpetual	1 / 3
induced, inducement*	1	punctual	1 / 3
duodenal	1	intellectual	1 / 3

words that might cause problems		*words with two or more options*	
residue	1	situation*	1 / 3
deciduous	1	suet	1 / 4
education*	1	suicide	1 / 4
sewin	1	issue	1 / 3 / 4
peninsula	1	sensuality	1 / 3
Zeus	1	Jesuit	1 / 4
resumé	1	January	1 / 4 (ə)
numismatic	1	lure	1 / 4
luce	4	thuya	1 / 4
lucid	4	anthurium	1 / 4
lunar	4	Methuselah	1 / 4
lucrative	4	Lithuanian	1 / 4
absolute, absolutely*	4		
enthusiasm*, enthusiastic*	1		

** longer derivatives of given words; 1= retention, 3= coalescence, 4= yod dropping*

The words from the matrix were used to create at least two styles. Since it would be impossible to elicit enough appropriate /ju/ words, an essential condition for further comparison in a rather limited space of time, I decided to use a word list and reading passages in my research. The word list (Appendix 3.1) is composed of thematic lines of four words, either synonyms or words connected in meaning to hide the recurring /ju/ sound. Some of these accompanying words also happened to be /ju/ words, in which case they were added to the matrix and marked pink if they occurred only in the word list. Due to the different contexts in which the selected words would normally be used, it was necessary to write the text as shorter reading passages instead of one long passage (Appendix 3.2). The headings were designed to prepare the reader for the context. They also serve the purpose of comparison between a text and a heading as a means of checking whether there is any difference in pronunciation. Moreover, it increases the number of times the target words are spoken. Again, in this way it happened that other /ju/ words appear in the text and these are marked blue in the matrix if they occur only in reading passages. In this procedure the completed matrix consists of 116 words, of which 15 occur only in the word list and 12 only in the reading passages, which leaves 89 words that can be compared in both styles.

yod after alveolars	**main stress**				**secondary stress**	**unstressed syllables**		
	stress on first syllable			*stress on second syllable*		*yod separated from main stress by a syllable*	*yod after a stressed syllable*	*yod before a stressed syllable*
syllable groups	1. *one-syllable words*	2. *two-syllable words*	3. *three-syllable words*	4.	5.	6.	7. yod in final syllable	8. yod in initial syllable
- plosives t	tune 1539 tube 1956	Tuesday 3453 tuna 354 *Tudor* RP 500 tulip WL 91	tubular 258	attuned 113 mature 1873		attitude 5902 substitute 1838 aptitude RP 189 constitute RP 1605	virtue 1860 statue 880 perpetual 492 punctual 66	situation 15725 intuition 421 tuition WL 459 statuette WL 73
st cluster	stew 327	stupid 3089 steward 759 *Stewart's* RP 2060	studious 58 studio 7528				*Neptune* WL 187 intellectual WL 2969 voluptuousness WL12	stupidity 285
d	due 15380 dew 272	duty 7862 during 43530	dubious 699	reduce 7078 produced 12779 endure RP 517 induced WL 1367 inducement WL 142	duodenal 653	residue 414	schedule 2480 module 3221 individual 18926 deciduous 91	duration 1822 education 25858
- fricatives s	suit 4830 sue 2360	super 1648 suet TT 60 *Susan* TT 1917 sewin WL 1	suitable 6021 suicide 1719 *Superman* 121	assume 4052 pursued 1499 consumed RP 817	suicidal 236 suitability TT 368 superstition TT 221		issue 16353 peninsula 615	insulation 589 sensuality 148 superfluous TT 236
z	*Zeus* WL 145			presume 525 presumably 3208			*Jesuit* 149 resumè	
- nasal n	new 124227 news 14174	nuisance 968 neutral 1564	newcomer 496 nuclear 8109	renew 509 renewal 1115	numismatic 12	avenue 1568 revenue 4064	menu 1560 annual 8125 January 10110	neutrality 538 numerically 188 malnutrition 191
- lateral l	lure 367 luce 469 *Luke* 3438	lucid 207 lunar 254 *Lucy* RP 2510 *Luton* RP 448	lucrative 514	solution 6795 salute 342		absolute 3432 absolutely RP 55	value 17726 valuable 3842 volumes 1593	valuation 1125 salutation 35
dental fricative T		thuya WL 0		enthusiasm 2868 anthurium WL 2 *Methuselah* WL 10	enthusiastic 1413		*Matthew* 2517	*Lithuanian* 292

- numbers after words refer to number of occurrences in the British national corpus; most words come from the OED online (pronunciation with /ju:/ search) or are mentioned in literature on yod
- violet words WL are words appearing only in the word list; blue words RP are words appearing only in the reading passages or TT in the tongue twister; *words in italics* are proper names
- group 7: words marked green – yod in final syllable as opposed to penultimate syllable; group 8: words marked yellow – yod in initial syllable as opposed to non-initial syllable

3.3 Social factors

Apart from the usual social factors such as age, sex and social class, concepts of social network and mental urbanisation were used as an experiment, both based on Marshall (2004:108, 113).

An *Informant's profile sheet* (Appendix 3.3) was created to obtain data on age, geographical history, occupation, education, earnings, housing and sources of information (e.g. type of newspapers or TV/radio channel). The last item was used in Marshall's social class questionnaire (2004:111), information on housing was adapted from Trudgill (1974), and the others are used in most sociolinguistic studies.

Age

There are three formative periods for the development of a vernacular: childhood, influenced by family and friends; adolescence, affected by dense networking; and young adulthood, when standardisation becomes important in connection with occupations which are "language-sensitive" (Chambers 2003:171). In middle age people will probably have picked up various accent or dialect features as a result of mobility. However, older people do not usually acquire a variable feature initiated by younger speakers even in the same community. Wells (1999b, 2000) divides his informants into four age groups, Amos (2006) and Britain et al. (2008) describe yod variation between the younger and older generations (more details in 2.4). I divided the informants into the following age groups:

1. children aged 8–14
2. young persons aged 15–21
3. younger adults aged 22–45
4. older adults aged 46–60
5. retired (61 and over)

Sex

It has been observed that women tend to prefer the standard forms and men the non-standard ones, e.g. Milroy and Milroy (1978:136 in Chambers 2003:75), Wolfram (1969), Horvath (1985) or Trudgill (1974). The term "sex" is used deliberately to avoid the increasingly problematized concept of the term "gender", viewed nowadays as a social or cultural construction. The aim of this study is not to show "how speakers use the linguistic resources available to them *to accomplish gender*" (Coates 2006:66). In my opinion the binary concept

has not been overthrown and I am also convinced that my informants did not think of themselves as "accomplishing gender" but simply as males and females.

Social class (SOCEC)

Due to the complicated character of the social class concept, it was decided to collect as much information as possible and then select the most appropriate items, so that a Trudgillian or any other classification could be used if needed. Each informant could reach a total score of 21: occupation, education, earnings and housing were graded zero to five, the source of information zero or one. For the final version only occupation, education and earnings were taken into account. The socio-economic index for forty Canadian occupations (from Blishen 1971:499–504 in Chambers 2003:47) incorporates income and education data as well. Thus the score for the socio-economic index is 0–15 according to the following tables:

occupation	SOC 2000*	NS-SEC**	'ABC1' scale***	score (0–5)
white collar	1	1	A	5
	2–3	2		4
	4	3	B	3
blue collar	5–6	4	C	2
	7–8	5–6	D	1
	9	7–8	E	0

* *Standard Occupational Classification 2000*
** *'ABC1' scale* – a scheme used by advertisers and researchers
*** *The National Statistics Socio-economic Classifications*

education	score (0–5)
degree or equivalent	5
higher education	4
GCE A-level or equivalent	3
GCSE grades A–C or equivalent	2
other qualifications (level unknown)	1
no qualifications	0

Categories are from the *Labour Force Survey*, Office for National Statistics

earnings	annually	score (0–5)
	more than £33,800	5
	£28,600–£33,800	4
	£23,400–£28,600	3
	£18,200–£23,400	2
	£13,000–£18,200	1
	less than £13,000	0

SOCEC	socio-economic group	score (0–15)
	UMC	15
	MMC	11–14
	LMC	7–10
	UWC	4–6
	LWC	0–3

Children were given a score on the basis of their parents' occupations.

Social network (SOCNET)

Social networks, the degree of interaction and integration in the local community, could have an effect on the choice of a variable because "the closer an individual's network ties are with his local community, the closer his language approximates to localized vernacular forms" (Milroy 1980:175 cited in Chambers 2003:75). The following eight questions, based on Milroy's and Pedersen's questionnaires cited in Marshall (2004:108), were asked in order to find out about informants' social networks:

1. Do your friends generally know each other as well as knowing you?
2. Do you have family members in this area? How many?
3. Do you work/go to school with 2 or more local people?
4. Do you work/go to school with at least 2 locals of the same sex?
5. Do you spend time with work/school friends after work/school, or during weekends and holidays?
6. Do you take part in a local group (organised or non-organised) in the area? (religious, scouts, guides, youth groups, sports, jobs, holiday activities, hunting, cards)
7. Do you take part in leisure/sport activities with 2 or more locals or work/school friends?
8. Have your mother and father lived here all their lives?

They measure accurately the *interactional* criteria of the network, which are content, number and frequency of interactions, multiplexity and strength, but have limitations for *structural* criteria such as size, density, centrality, clustering and the network role of the speaker.

Informants could reach a SOCNET score of 0–8, one point for a positive answer to the questions above and zero for a negative one.

Mental urbanisation (MENURB)

I also wished to establish whether there was any correlation between the choice of a yod variant and respondents' attitudes to urban and rural life. One measure of such attitudes is provided by mental urbanisation, a person's positive or negative attitude to the city or the country, a concept originating in Højrup's (1983) Life Modes, re-evaluated by Pedersen (1994) and re-modelled by Marshall (2004:218), which can be used for rural studies or even in smaller towns. The informants express their opinion on the following ten statements on a scale from strongly agree, agree, neutral, disagree to strongly disagree:

1. I notice what people are wearing in London/Bristol, I like to keep up with city fashion.
2. I mostly watch TV programmes about city life and avoid nature/environmental programmes.
3. I would like to follow a career in a city rather than one where I work in the country or a small town around here.
4. I think it is very important to own a PC or at least have access to one at school/work.
5. I would love to move away from this area to the city.
6. When I am in London/Bristol, I feel at home and unstressed by the crowds and traffic.
7. City folk are just as friendly as anyone, and are basically the same as country folk.
8. I never eat roast beef and Yorkshire pudding or any traditional meals. I prefer modern/international dishes.
9. A good education, getting on in life, and having all the modern equipment and appliances is more important than quietness and having a good family life.
10. I'd rather spend a day in London/Bristol playing computer games or shopping than spend it rambling in the Essex/Somerset countryside with friends and family.

These statements clearly have some limitations in that they cannot take everything into account, e.g. there are no traditional vegetarian meals. For many people computers are now essential working equipment and are therefore no longer indicative of a rural versus urban dichotomy. However, taken as a whole, the responses to this set of questions represent a tendency to prefer an urban or a rural way of life:
(Marshall 2004:218)

1. A positive cultural orientation to the city, manifest in, e.g. dress code.
2. Interest in TV programmes dealing with city life and issues.
3. A desire to take up a career in the city, rather than working in the local area.
4. A desire to keep abreast of technological developments, e.g. owning a PC.
5. A desire to leave the local area and move to the city.
6. A feeling of being at ease when in the city.
7. A positive perception of city people.
8. A tendency to abandon traditional local dishes in favour of fast food and international dishes.
9. Favouring career and ambition over peace and quiet and a long family life.
10. Free time spent in the city, rather than exploring the local countryside.

Informants reached a MENURB score between 0 and 40 according to the table below. The lower the score, the stronger the positive attitude to urban life. The higher the score, the stronger the positive attitude to rural life.

strongly agree	agree	neutral	disagree	strongly disagree
0	1	2	3	4

3.4 Hypothesis

According to the linguistic atlases below, both Braintree and Weston-super-Mare are mostly yod-retaining areas.

word	Braintree, Essex	Weston, North Somerset
Tuesday, tune, new *	iu:	iu:
suit*	iu:	u:
new, suet, suit, tune, Tuesday**	iu 85–100% u: ~ ü: ~ ʏ: 20–69%	iu 20–39%; ju: 55–69% u: ~ ü: ~ ʏ: 40–69%
(brand-)new***	iu: / iü:	ju / ju:
Tuesday***	iu:	ju:
dew***	iü:	ɷü:
suet ***	iü:	u:
Tuesday****	tyooz	tyooz
dew****	dyoo	dyoo / joo

* *The Linguistic Atlas of England*. Orton, Anderson, Widdowson, 1978. Based on the *SED*. (England divided by lines into areas)

** *A structural Atlas of the English Dialects.* Anderson, 1987. (no area boundaries shown, selected places marked by dots –> closest places were chosen for comparison)

*** *Atlas of English sounds*. Kolb, 1979. Based on the *SED* (no area boundaries shown, selected places marked by signs –> closest places were chosen for comparison)

**** *An Atlas of English Dialects*. Upton & Widdowson, 1996. Based on earlier works interpreting *SED* with updated boundaries.

Therefore it could be assumed that the most common variant of yod should be yod retention. However, the trend of the last decade at least suggests that there might be considerable coalescence with or without yod and yod dropping. The question is whether the choice is a linguistic or social feature and whether there are any noticeable patterns in the choices.
It has been observed that yod dropping is spreading, even in Received Pronunciation, in stressed syllables in some words. It is unclear, though, whether the feature is related to specific words only or whether it can be described in a wider context. Similarly, coalescence has been heard in the media, especially in unstressed syllables, and often also criticised.

Because of high mobility and the increasing acceptability of a wide range of accents in the media and in education, it is not expected that Braintree or Weston remain a clearly yod-retaining area any more. For these reasons yod is more likely to be retained with older people and "traditionalists" (reflected in a high score in MENURB). It is difficult to speculate about sex, social networks and socio-economic class because the connection of these factors and the choice of yod realisation also depends on the level of social stigmatisation of coalescence and dropping. For example, women may use the innovative forms, i.e. coalescence or dropping, more than men, which is a sign of language change in progress. On the other hand, they might tend to avoid coalescence and dropping if they feel it carries a social stigma.

From a purely linguistic point of view (Jones 1972:234–235), there could be:

- more coalescence and dropping in unstressed syllables than in stressed syllables
- more coalescence and dropping in syllable groups 2, 3, and 5 than in syllable group 1
- more coalescence and dropping in syllable group 8 than in syllable group 7
- more coalescence and dropping the longer the word is in the 1–3 group pattern.

Words from syllable group 6 might behave more like words in stressed syllables rather than words in unstressed syllables (Bauer 1994:108). Based on previous studies, variables from reading passages can be expected to contain more non-standard forms than variables from the word list.

3.5 Method

A combination of two methods was used to find informants. I used the house of my hosts in both towns as my base and approached the neighbours, referring to my host, and on that occasion asked them to nominate people who they thought might be willing to take part in my study – "a friend of a friend" method. People were mostly friendly and willing to help. However, it was not always easy to find members of younger generations.

Having learned from the difficulties with finding informants in Braintree, a further means was used in Weston: my host wrote a letter to his neighbours (Appendix 3.4) prior to my arrival, explaining that I was carrying out a language study which involved reading a few texts, answering a few questions, stressing that it was anonymous and that they would not be contacted again. My photo was attached for identification. Several churches, drama groups and schools in the area were also contacted. The result was an announcement in one church paper and a response from the head of the English department of the local school. When I arrived at Weston, several people had left a message that they were willing to take part. An appointment at one school had also been arranged. The letter to the neighbours worked really well because people were not very surprised by my visit and remembered I was supposed to come. Either they agreed to help immediately or a more convenient date was arranged. In fact, there was only one negative reaction.

The interviews took place in people's homes, mostly living-rooms with carpets and curtains, which was suitable for the acoustic conditions for the recording. A digital voice recorder Olympus VN-480PC was used. The interview was designed to last about 20 minutes. The aim was to gain as much information as possible in as short a time as possible to increase the chances of people agreeing to the interview. The actual length depended on the informant's speed of reading. The procedure varied slightly according to the situation. Informants were usually asked personal details first, which were recorded in their *Informant's profile sheet*, then they completed the rest by ticking one of the boxes referring to education, earnings, housing, and their source of information. Nobody refused to provide these details.

The informants were asked to read the reading passages (RP) as naturally as possible. Then the word list (WL). The reading was recorded. After that they were asked eight yes or no

questions to find out about their social networks (SOCNET) and presented with ten statements, to which they chose their opinion from a slip of paper with
strongly agree agree neutral disagree strongly disagree
to find out about their degree of mental urbanisation (MENURB).
The last task was to circle how they thought they pronounced eight words: *Tuesday, news, during, presumably, suitable, lucrative, enthusiasm, situation*. This gave me an opportunity to explain to those who were interested what exactly I was studying.

3.6 Analysis of recordings

Ordinary auditory perception using dynamic stereo headphones Sennheiser HD 600 ("open air"; frequency response 16–30,000 Hz (-3dB), 12–38,000 Hz (-10dB); sensitivity at 1 kHz 97 dB) was applied to analyse the recordings. The /ju/ syllables of the words concerned were transcribed from all the recordings. There were 227 /ju/ words in the texts. The procedure was repeated and a selection was checked by a trained phonetician. More attention was paid to the yod allophone and its effect on the preceding consonant than the following vowel quality. It was decided that at least four groups of yod variants are needed in most cases, even though only three are mentioned in materials available on this subject so far: yod retention, yod coalescence and yod dropping, e.g. / tjuː zdeɪ, ʧuːzdeɪ, tuːzdeɪ/, respectively. There is a mention of /ʧjuː/ in Bauer (1994:104) as a variant of *chew* in the second edition of the *Oxford English Dictionary*. Bauer says that otherwise /j/ is no longer present after /ʧ/ and /r/ in any variety of English. In the recordings, however, there are clear cases of coalescence with yod and without yod, e.g. /ʧiuːzdeɪ/ and / ʧuːzdeɪ/, respectively.

Bauer summarises three arguments according to which coalescence should be classified as yod retention rather than yod dropping (1994:108–109):

1) the palatality of /j/ is retained in the coalesced forms
2) the process of affrication is phonologically defined as fortition or strengthening (as opposed to lenition or weakening)
3) the coalesced words in Bauer's examples from the Survey of English Dialects co-occur mostly with retained yod.

Even when this is taken into account, there is a clearly audible difference between the coalesced sound with /j/ and without /j/. Therefore this distinction will be kept. It is difficult to state with certainty whether the quality is still a semi-vowel /j/ or a vowel /i/. The authors of dialect atlases use either /j/ or /i/ and sometimes distinguish between the two.

Apart from the two types of coalescence, i.e. coalescence with yod and coalescence without yod, there is also a wide range of coalesced pronunciations of most alveolar consonants, e.g. [tɕuː ~ ʧʉː], and likewise the vowel qualities also vary, i.e.[uː ~ ʉː ~ iː]. If all these aspects were to be categorised, it would complicate the quantitative aspect of this study and to be absolutely sure about the precise division of the phoneme qualities methods of instrumental phonetics would be advisable. The table below lists the categories used in this study and shows the pronunciation range for each consonant and /ju/ combination.

variants / consonant	*1. yod retention*	*2. coalescence + yod*	*3. coalesce without yod*	*4. yod dropping*
t and st	[tjuː ~ tiuː]	[tɕjuː ~ ʧiuː]	[tɕuː ~ ʧʉː ~ ʧiː]	[tuː ~ tʉː ~ tiː]
d	[djuː ~ diuː]	[dʑjuː ~ ʤiuː]	[dʑuː ~ ʤʉː ~ ʤiː]	[duː ~ dʉː ~ diː]
s	[sjuː ~ siuː]	[ʃjuː ~ ʃiuː] or [sʃiuː]	[ʃuː~ʃʉː~ʃiː] or [sʃuː]	[suː ~ sʉː ~ siː]
z	[zjuː ~ ziuː]	[ʒjuː ~ ʒiuː]	[ʒuː ~ ʒʉː ~ ʒiː]	[zuː ~ zʉː ~ ziː]
n	[njuː ~ niuː]	[ɲjuː ~ ɲiuː]	[ɲuː ~ ɲʉː ~ ɲiː]	[nuː ~ nʉː ~ niː]
l	[ljuː ~ liuː]			[luː ~ lʉː ~ liː]
θ	[θjuː ~ θiuː]			[θuː ~ θʉː ~ θiː]

Only words read correctly, i.e. with the correct stress, were included in the study.
The basic principle for categorising the /ju/ syllables when the pronunciation was not entirely clear was to listen for whether the consonant was a dental or alveolar one (hard) or a coalesced or palatalised one (soft). And similarly with yod presence or absence: a glide /ju/ or /iu/ suggested yod presence and a plain vowel /u/ of some quality meant yod absence. In some cases /l/ was palatalised to some extent but since I was not absolutely sure about the borderline I did not treat it as a separate category. The dental fricative /θ/ is not palatalised in English. Throughout the study the four variants are also referred to by the following numbers and colours:

yod variant	*number*	*colour*
yod retention	(1)	green
coalescence with yod	(2)	yellow
coalescence without yod	(3)	blue
yod dropping	(4)	red

4. Case study Braintree & Bocking, Essex

4.1 Geographic and demographic information

County Essex

Essex is a coastal county in the east of England, north – north-east of London with a total area of 346,463 hectares. Its population of 1,318,400 includes 5.5% ethnic group minorities, which is well below the national average. "The industry group with most employees was 'retail/wholesale trade, hotels & restaurants' with 26% of employees. It was followed by 'public admin, education & health' with 22% of employees and 'finance & business activities' with 19%." (www.essexcc.gov.uk/trends). New jobs have been created with the constant development of the Stansted airport: "In May 2003, it was the fastest growing major airport in Europe for the third year in a row." (www.essexcc.gov.uk/trends p. 27). Many people working in Essex are not residents and vice versa. Many people commute within the county, too. Unemployment is also lower than the national average.

Braintree & Bocking

Bocking was originally a separate village but has now merged into the surrounding conurbation of north Braintree, 30 minutes from Stansted airport and an hour from London. However, it has retained many features of village life and remains a peaceful place in which many neighbours are still generally known to each other.

Braintree is situated in the heart of Essex and is a pleasant town to work and live in. It is halfway between Stansted airport and Harwich seaport. It has 132,179 residents (Census 2001). 60% of informants reside in the neighbourhood of Bocking officially labelled Braintree 007D. The following figures from the National Statistics Census 2001 give comparisons of the age distribution, as close as possible to the age distribution of the study sample (see Fig. 4.1), for the above neighbourhood, Braintree and the East of England.

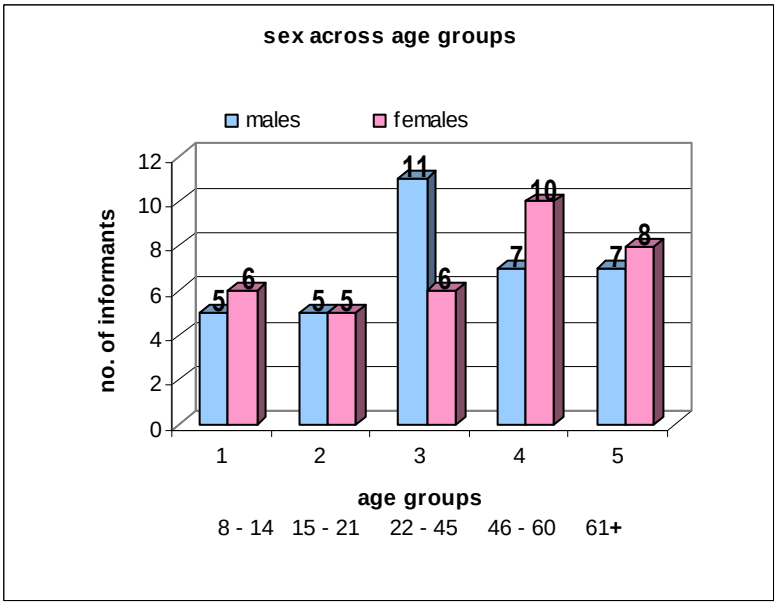
Population 2001		Braintree 007D	Braintree	East of England
all people	count	1,535	132,179	5,388,140
males	count	705	65,060	2,638,335
females	count	830	67,119	2,749,805
people aged 8–14	%	7.82	9.52	9.18
people aged 15–19	%	4.82	5.53	5.69
people aged 20–44	%	32.18	34.45	34.25
people aged 45–59	%	20.46	20.70	19.59
people aged 61 +	%	28.47	19.57	21.40

The figures for the East of England do not differ by more than 1% from the figures for England. The neighbourhood concerned (Braintree 007D) has a lower proportion of younger people under 20 and a considerably higher proportion of people over 60 compared to Braintree.

All ethnic groups in the neighbourhood 007D are well below the East of England figures. There are 98.76% white persons, 0.92% mixed persons, 0.33% Chinese or other ethnic group persons and no Black, Black British, Asian or Asian British persons. Therefore ethnicity was not a relevant subject for investigation of social factors.

4.2 Sample characteristics

There are 70 informants, 35 males and 35 females, aged 8–92.

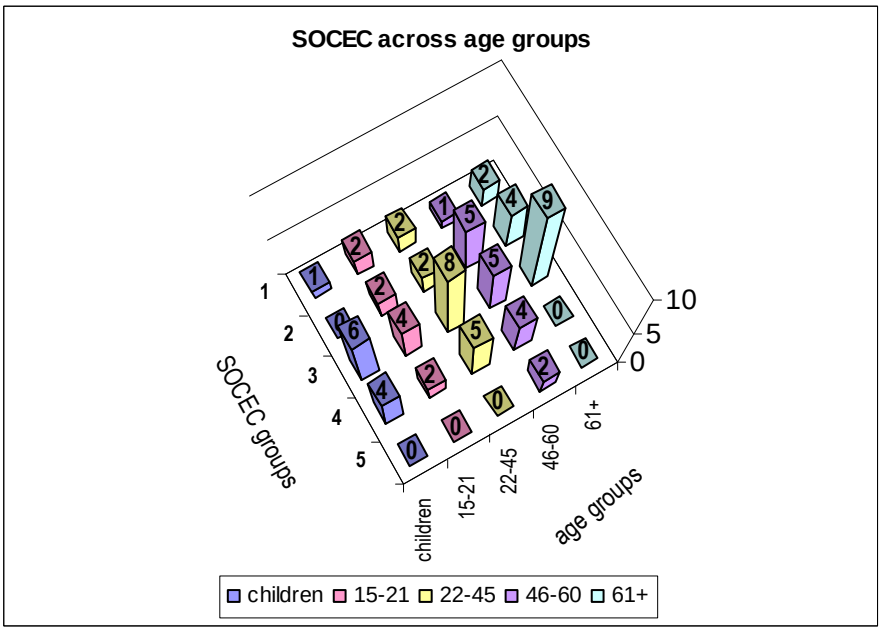


age group		*male*	*female*
1	8–14	5	6
2	15–21	5	5
3	22–45	11	6
4	46–60	7	10
5	61+	7	8

Fig. 4.1 Distribution of informants according to sex across age groups

Fifty-seven informants have spent more than half their lifetime in Essex.

Socio-economic distribution across the sample



SOCEC score	SOCEC group
0–3	1 (LWC)
4–6	2 (UWC)
7–10	3 (LMC)
11–14	4 (MMC)
15	5 (UMC)

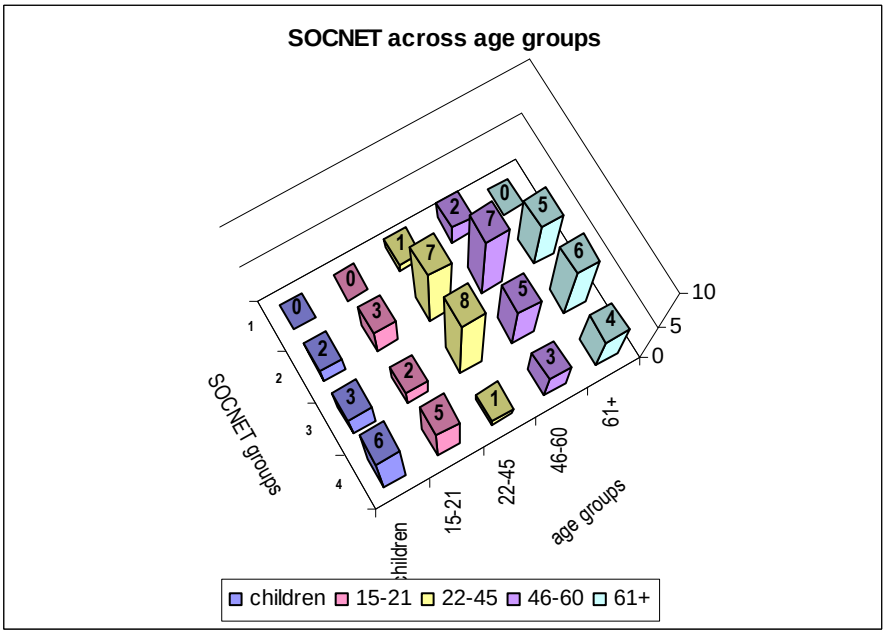
LWC = lower working class
UWC = upper working class
LMC = lower middle class
MMC = middle middle class
UMC = upper middle class

age group	***SOCEC*** *1*	*2*	*3*	*4*	*5*
1	1	0	6	4	0
2	2	2	4	2	0
3	2	2	8	5	0
4	1	5	5	4	2
5	2	4	9	0	0

Fig. 4.2 Distribution of informants according to socio-economic groups across age groups

There is no significant correlation between age and SOCEC or sex and SOCEC. Most informants (32) belong to SOCEC 3, which roughly corresponds to lower middle class.

Social network distribution across the sample



SOCNET score	SOCNET group
0–2	1
3–4	2
5–6	3
7–8	4

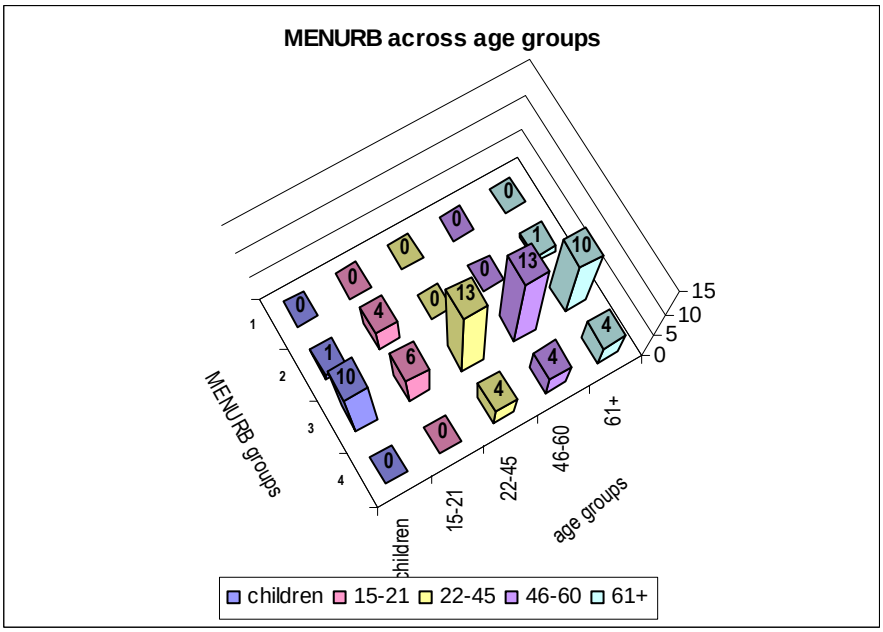
group 1 = no interaction with locals
group 2 = some interaction with locals
group 3 = moderate interaction with locals
group 4 = a lot of interaction with locals

age group	***SOCNET*** *1*	*2*	*3*	*4*
1	0	2	3	6
2	0	3	2	5
3	1	7	8	1
4	2	7	5	3
5	0	5	6	4

Fig. 4.3 Distribution of informants according to social network groups across age groups

There is no significant correlation between age and SOCNET or sex and SOCNET. Most informants interact with local people to some extent.

Mental urbanisation distribution across the sample



MENURB score	MENURB group
0–10	1
11–20	2
21–30	3
31–40	4

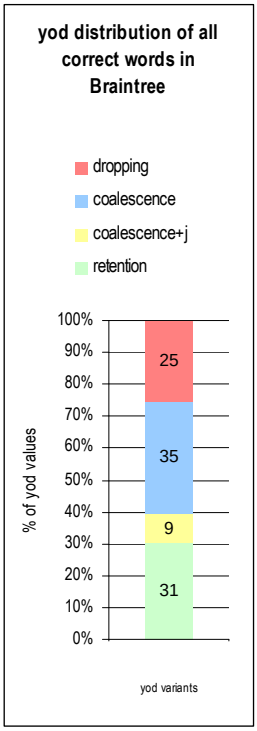
group 1 = very positive attitude to the city
group 2 = positive to neutral attitude to the city
group 3 = neutral to negative attitude to the city
group 4 = very negative attitude to the city

	MENURB			
age group	*1*	*2*	*3*	*4*
1	0	1	10	0
2	0	4	6	0
3	0	1	11	5
4	0	0	13	4
5	0	1	10	4

Fig. 4.4 Distribution of informants according to mental urbanisation groups across age groups

There is a significant positive correlation between age and mental urbanisation, which suggests that the negative attitude to the city increases with age. There is no significant correlation between sex and mental urbanisation. The very uneven distribution of informants in MENURB groups implies that the attitude statements need more refinement. For instance, a distinction should be made between necessary and voluntary use of modern technology and false oppositions should not be created between attitudes that are not necessarily antithetical, e.g. a good education on the one hand, quietness and a good family life on the other.

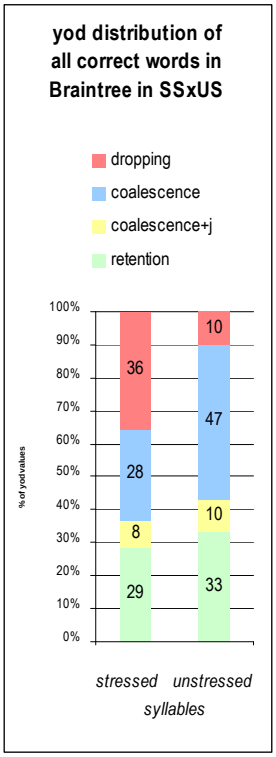
4.3 Overall yod distribution in Braintree



Out of the possible total of 15,890 utterances (227 words multiplied by 70 informants), 15,040 were pronounced correctly and these are shown in the graph. The overall picture (Fig. 4.5) of the pronunciation of yod words shows a fairly even distribution of the most frequent variant coalescence (35%), yod retention (31%) and yod dropping (25%). The smallest proportion is coalescence with yod (9%).

yod variants	*1*	*2*	*3*	*4*	*total*
no. of yod utterances	4591	1291	5331	3827	15040
%	31	9	35	25	100

Fig. 4.5 Yod distribution of all correctly pronounced words



However, it could be misleading to combine words with yod in stressed (SS) and unstressed syllables (US) because of their different linguistic behaviour. It is therefore better to look at the graph with syllable stress separation (Fig. 4.6).

yod variants		*1*	*2*	*3*	*4*	*total*
n	*SS*	2611	699	2545	3224	9079
%	*SS*	29	8	28	36	100
n	*US*	1980	592	2786	603	5961
%	*US*	33	10	47	10	100

Fig. 4.6 Yod distribution of all correctly pronounced words in stressed and unstressed syllables

Three fifths of the total number of correct utterances occur in stressed syllables, and two fifths in unstressed syllables. The obvious difference between these two contexts is the proportion of coalescence and yod dropping. Whereas yod dropping is the most common variant in stressed syllables, in unstressed syllables it is coalescence which accounts for almost half of all the variants. The percentage of coalescence confirms Bauer's claim that it occurs more often in unstressed than stressed syllables. The proportion of yod retention and coalescence with yod remains roughly the same in both contexts. This might suggest a phonetic similarity in their usage. Therefore if coalescence with yod had to be joined with either yod retention or coalescence, it should logically be the former option.
Now the question is, what are the most probable reasons for the choice of a particular variant? Which of the social and linguistic factors are significant and in what way?

4.4 Yod variants across linguistic factors

There are five linguistic factors investigated in this study, some of which might influence the choice of the variable: stress, style, preceding context, following context and the whole syllable stress pattern of a word.
Stress, style and preceding context have been shown to play a part in previous studies on yod variation. The other factors have been considered only in Britain et al. (2008).

4.4.1 Stress

As mentioned above, it is better to keep yod in stressed and unstressed syllables separate in light of the different linguistic behaviour. This principle will be followed for the rest of the study. Informants' yod index (explained in chapter 4.5) shows a strong positive correlation between stressed and unstressed syllables even at 1% level of significance ($p = 0.01$; critical value for $n = 70$ is 0.306; $r = 0.875$).

4.4.2 Style

It is assumed that more non-standard forms occur in less formal contexts. Trudgill (1974) proves this also for /ju/ variation. In a /ju/ pronouncing area this means that there would be more yod retention in a word list than in a reading passage. It would have been ideal to compare the choice of yod variants in a careful style, an interview and in unobserved speech. With this kind of design though, it would have been impossible to elicit most words due to their rarity or their level of formality, let alone to come across an informal monologue or

conversation containing these words. (An attempt was made to find yod words in some of the local dialect recordings in the Essex Record Office, with no success). Therefore it was decided to compare at least a very careful style, reading a list of words (WL), and a careful to natural style, reading short passages with different topics (RP). Figure 4.7 gives an overview of the results of all yod utterances, the only graph which shows even the mispronounced words. Figure 4.8 shows the same data, but without the mispronounced words.

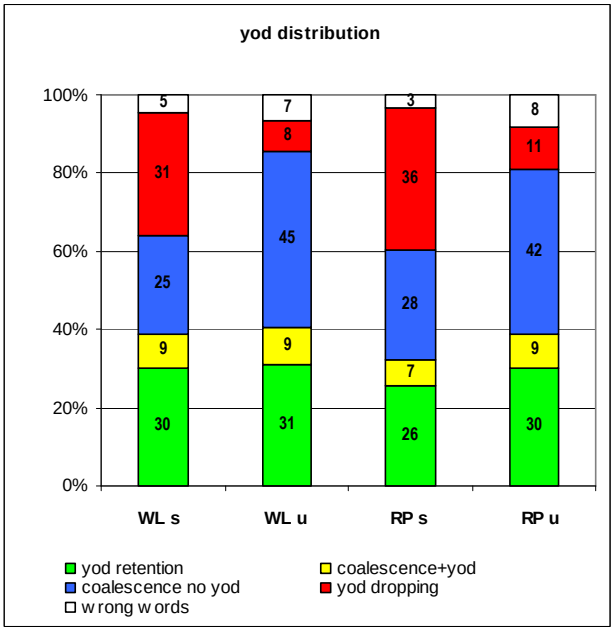


Fig.4.7 Yod distribution in all words in SSxUS in WLxRP

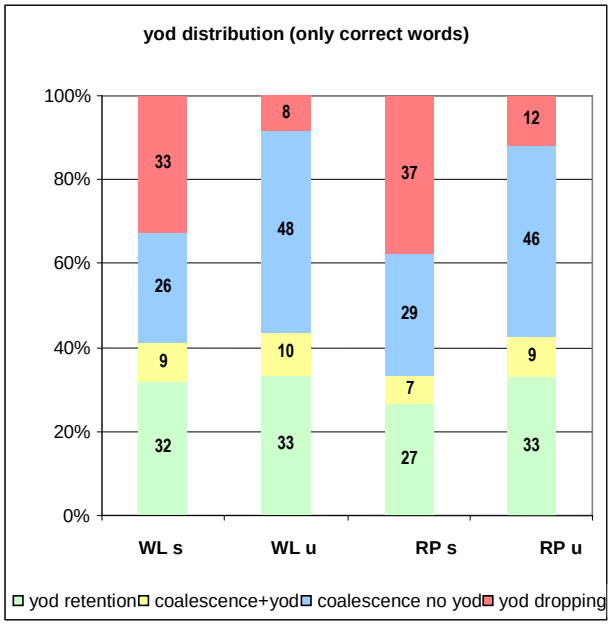


Fig. 4.8 Yod distribution in correct words in SSxUS in WLxRP

Tab. 4.1 Yod distribution in all words in SSxUS in WLxRP

yod variant	Fig. 4.7	1	2	3	4	wrong	total
WL stressed	n	1232	348	1024	1268	188	4060
	%	30	9	25	31	5	100
WL unstressed	n	960	291	1378	242	209	3080
	%	31	9	45	8	7	100
RP stressed	n	1387	351	1523	1956	173	5390
	%	26	7	28	36	3	100
RP unstressed	n	1020	291	1408	361	280	3360
	%	30	9	42	11	8	100

Tab. 4.2 Yod distribution in correct words in SSxUS in WLxRP

Fig. 4.8	1	2	3	4	total
n	1232	348	1024	1268	3872
%	32	9	26	33	100
n	960	291	1378	242	2871
%	33	10	48	8	100
n	1387	351	1523	1956	5217
%	27	7	29	37	100
n	1020	291	1408	361	3080
%	33	9	46	12	100

In stressed syllables the predicted pattern occurs ('pattern' refers to the proportions of yod distribution within a group or a word and is used throughout the thesis): there is more yod retention and coalescence with yod in the word list than in the reading passages, where accordingly higher proportions of coalescence and yod dropping are found.
The informants' yod index shows a very strong positive correlation between the word list and reading passages even at 1% level of significance ($p = 0.01$; critical value for $n = 70$ is 0.306; $r = 0.948$).

4.4.3 Preceding linguistic context

As discussed in the literature review, various linguists have made observations on yod dropping and coalescence either in Received Pronunciation or in general. According to Ramsaran (1990) yod can be omitted after /l/ and /s/, but not after /t, d, n, z/; Cruttenden (1994) mentions also dropping after /n/, apart from /l/ and /s/, but no dropping after /θ/ and /z/; Bauer (1994) creates an implicational scale where yod is more likely to be omitted the more to the left the preceding consonant is placed: s > θ > l > {n, d} > t ; and ten years later Altendorf (2003) observes more yod dropping after / θ, s, z, l/ than /n, t, d/ and comments on the competition of dropping and coalescence after /t/ and /d/.

As the linguistic categories are not naturally ordered and therefore nominal, neither correlation nor multiple linear regression could be used to determine the relations between the linguistic factors and the choice of variable. A chi squared test showed independence between the preceding context and the choice of variable.

Stressed syllables (SS)

The following figure (Fig. 4.9) shows the distribution of yod after the individual consonants in stressed syllables.

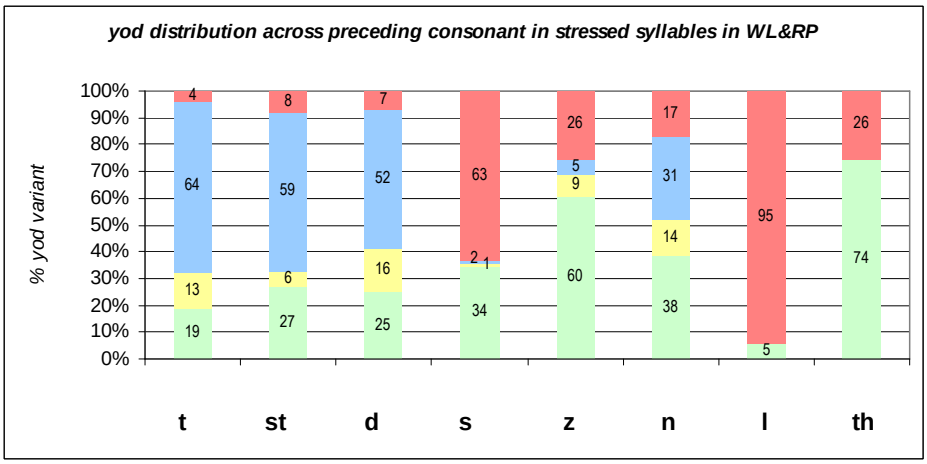


Fig. 4.9 Yod distribution across preceding consonant in stressed syllables in WL&RP

Tab. 4.3 Yod distribution across preceding consonant in stressed syllables in WL&RP

context	*no. of words with a particular variant*						%			
SS	***1***	***2***	***3***	***4***	***total n***		***1***	***2***	***3***	***4***
t	228	166	788	49	1231		19	13	64	4
st	226	47	493	66	832		27	6	59	8
d	383	249	803	107	1542		25	16	52	7
s	654	22	29	1206	1911		34	1	2	63
z	233	33	21	99	386		60	9	5	26
n	514	182	413	230	1339		38	14	31	17
l	79	0	0	1363	1442		5	0	0	95
th	302	0	0	104	406		74	0	0	26

The most frequent variant in stressed syllables after /t, st, d/ is coalescence; after /z, n, θ/ it is yod retention; and after /s, l/ it is yod dropping.

From these results we can suggest various implicational scales:

1) yod retention, by which we in this case consider both variants 1 and 2 because yod is audible: **θ > z > n > d > s > st > t > l**

   This means that yod in stressed syllables is more likely to be retained after /θ/ than after /z/, etc. and least frequent after /l/, e.g. yod is more likely to occur in *enthusiasm* than in *presumably* and least likely in *solution*.

2) coalescence, variant 3: **t > st > d > n > (z > s)**

   It is more probable to hear coalesced *Tuesday* than *duty*. Coalesced /z/ and /s/ occur only in non-initial positions, e.g. in *presumably* more likely than in *assume*. There is no coalescence with /θ/ in English. There were, however, a very few cases of strongly

palatalised /l/ ~ /ʎ/ but in the interest of accuracy these were ignored since I could not be sure about the distinction.

3) yod dropping, variant 4: **l > s > z, θ > n > st > d > t**

In this case the yod in *lucrative* is more likely to be omitted than the yod in *suitable* and least likely in *Tuesday*, the standard American version.

These results seem closest to Altendorf's observations.

The next figure (Fig. 4.10) shows yod distribution across preceding context in both styles word list and reading passages. The differences are not huge in most cases. However, where coalescence occurs, there is always a higher score, increased by 4–12%, at the expense of yod retaining variants 1 and 2 in reading passages. Higher values of both coalescence and dropping are predicted in the less careful style, reading passages, but coalescence reflects this assumption much better than dropping in this case. Only after /z/ and /θ/ it is the other way round: the yod retaining variants are more frequent in reading passages than in the word list, perhaps due to the occurrence of some of the less usual words.

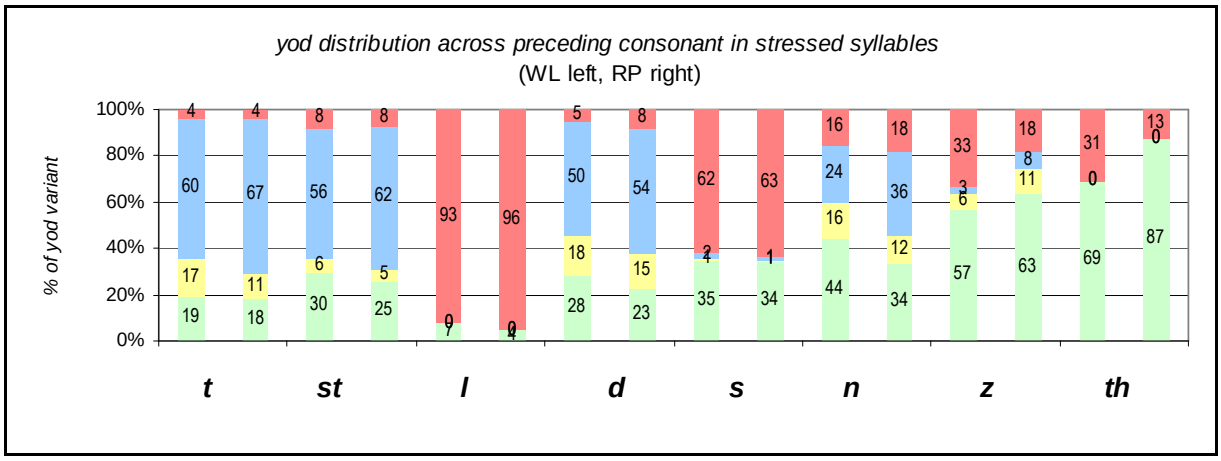


Fig. 4.10 Yod distribution across preceding consonant in stressed syllables, separately in WL and RP

Unstressed syllables (US)

The patterns in unstressed syllables are similar to those in stressed syllables, with the exception of /s/ and /l/. This is not to say that there is no difference – the proportions in stressed syllables vary slightly from the proportions in unstressed syllables, e.g. there is more coalescence after /t, st, z/ and /d/ in unstressed syllables at the expense of retention. Yod

retention is the most frequent variant after /θ, l, z/ and /n/. Coalescence is the most frequent variant after /t, st/ and /d/. The striking differences after /s/ and /l/ have explanations.
In the case of /s/ the coalescence in unstressed syllables is caused by the character of the words – /s/ is, apart from *superfluous* (only in reading passages, in the tongue twister), in non-initial position, therefore more likely to be coalesced simply because /s/ coalescence never occurs in a word-initial position. Comparison of /s/ non-initial words can be seen in my discussion of syllable groups, group 4 and 7, possibly 8. In conclusion, /s/ in unstressed syllables prefers coalescence to dropping, but the proportion of yod retention in stressed and unstressed syllables is very similar.
/l/ is a classical example of the historical development, where yod has been lost in stressed syllables, e.g. *lunar*, and still kept in unstressed syllables, e.g. *value*. Important details on /l/ in unstressed syllables are to be found in the section on syllable groups and yod distribution in individual words.

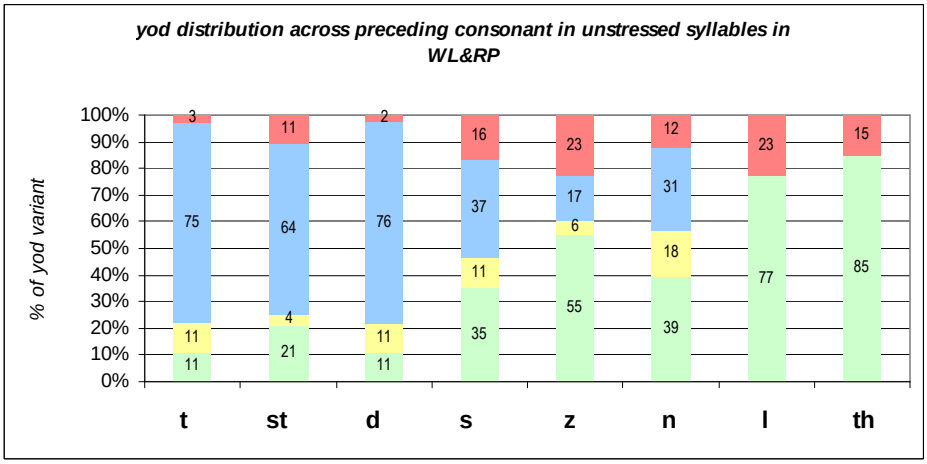


Fig. 4.11 Yod distribution across preceding consonant in unstressed syllables

Tab. 4.4 Yod distribution across preceding consonant in unstressed syllables

context	*no. of words with a particular variant*						%			
US	***1***	***2***	***3***	***4***	***total***		***1***	***2***	***3***	***4***
t	184	193	1288	51	1716		11	11	75	3
st	28	5	85	14	132		21	4	64	11
d	113	120	817	24	1074		11	11	76	2
s	231	73	244	106	654		35	11	37	16
z	79	8	24	33	144		55	6	17	23
n	408	183	328	126	1045		39	18	31	12
l	719	0	0	210	929		77	0	0	23
th	218	0	0	39	257		85	0	0	15

The implicational scales for unstressed syllables could be as follows:

1) yod retention, by which we in this case consider both variants 1 and 2 because yod is audible: **θ > l > z > n > s > st > t, d**

This means that yod in unstressed syllables is more likely to be retained after /θ/ than after /z/, etc. and is the least frequent after /t/ and /d/, e.g. yod is more likely to occur in *Matthew* than in *resumé* and the least likely in *situation* or *education*.

2) coalescence, variant 3: **d > t > st > s > n > z**

It is more probable to hear coalesced *situation* than *stupidity*. Coalesced /s/ and /z/ occur only in word non-initial positions, e.g. in *issue* more likely than in *resumé*. For comments on coalescence with /θ/ and /l/ the same applies as in SS above.

3) yod dropping, variant 4: **z , l > θ, s > n, st > t, d**

In this case the yod in *resumé* is more likely to be omitted than in *Matthew* and least likely in *situation.*

It must be remembered that these are only possible examples. The implicational scale is not universally valid due to the limited number of words in the study.

The following figure (Fig. 4.12) shows yod distribution in unstressed syllables separately in the word list and reading passages. The amount of differences between individual variants in the word list and reading passages is even smaller than in stressed syllables. There is either the same or a higher yod dropping rate in reading passages than in the word list, which is analogous to coalescence or dropping (except / θ / and /z/) in stressed syllables in reading passages compared to the word list. Yod retaining variants are equal or slightly more frequent in the word list than in reading passages. Coalescence does not show a pattern between the two styles.

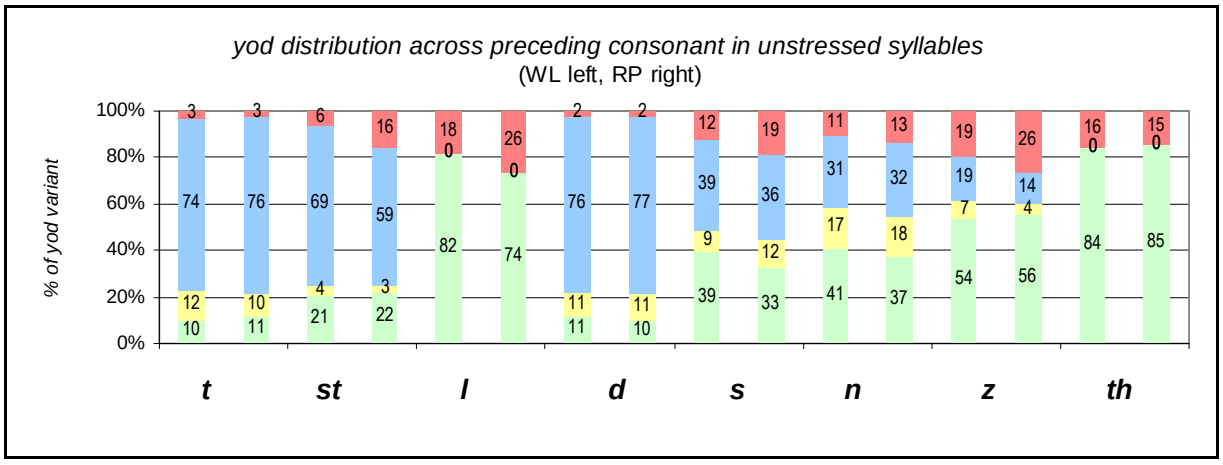


Fig. 4.12 Yod distribution across preceding consonant in unstressed syllables, separately in WL and RP

4.4.4 Syllable groups

This chapter will examine yod distribution in the eight syllable groups in general but also uncover the differences when preceding context is taken into consideration. Each of the preceding contexts is examined for the distribution of yod variants within the syllable group frame and analysed more closely. The yod distribution of individual words is shown, and possible reasons for variation across the syllable groups as well as within the cells are discussed. Unusual features of pronunciation of the words concerned are mentioned when they occur with several informants. A comparison of the results of the relevant words from Wells's *LPD Pronunciation Preference Survey 1998* with informants from this study is made.

The overview of syllable groups

The results showed differences of yod distribution between stressed and unstressed syllables in general, but is there variation among different syllable groups? Eight syllable groups were tested as designed in the matrix. Five groups of yod in stressed syllables: one-, two-, and three-syllable words with yod in the first syllable, e.g. *tube, Tuesday, tubular*, yod in the second syllable, e.g. *mature*, and yod in secondary stress, e.g. *enthusiastic*; and three groups of yod in unstressed syllables: yod separated from the main stress by a syllable, e.g. *attitude*, yod after a stressed syllable, e.g. *virtue*, and yod before a stressed syllable, e.g. *situation*. The following figure (Fig. 4.13) shows the results of all words from the matrix.

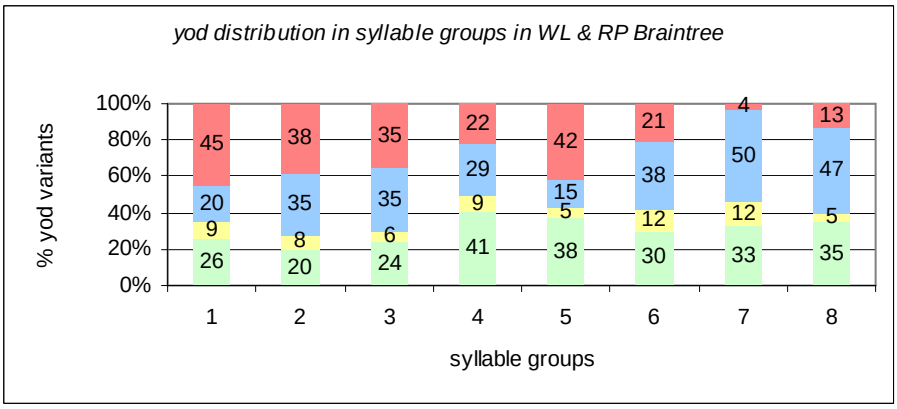
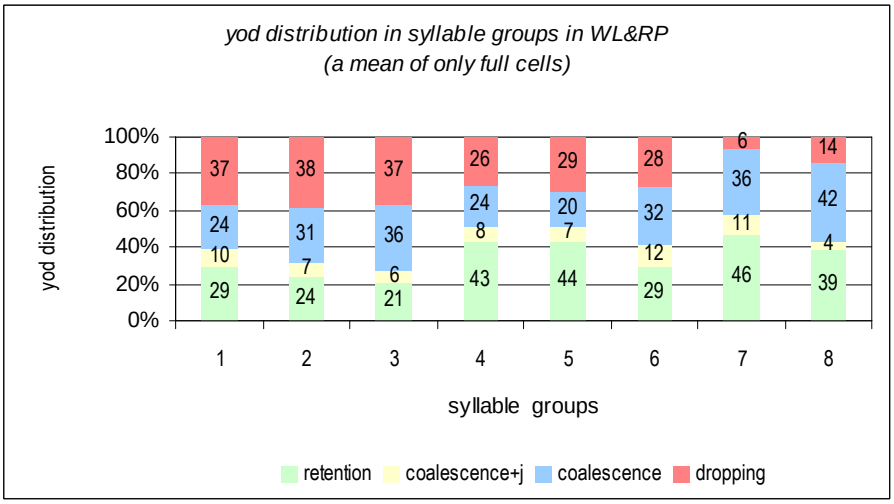


Fig. 4.13 *Yod distribution in syllable groups in WL & RP*

Tab. 4.5 *Yod distribution in syllable groups in WL & RP*

	yod variant, counts					*yod variant, %*				
syllable groups	*retention (1)*	*coal.+ j (2)*	*coalescence (3)*	*dropping (4)*	*total*	*retention (1)*	*coal.+ j (2)*	*coalescence (3)*	*dropping (4)*	*total*
1	587	208	462	1026	2283	26	9	20	45	100
2	445	170	776	856	2247	20	8	35	38	100
3	364	87	535	523	1509	24	6	35	35	100
4	948	198	664	514	2324	41	9	29	22	100
5	275	36	110	305	726	38	5	15	42	100
6	339	133	434	235	1141	30	12	38	21	100
7	944	351	1423	102	2820	33	12	50	4	100
8	697	98	929	266	1990	35	5	47	13	100
					15040					

Each column in the above diagram represents the yod variant distribution of all correctly pronounced words from its syllable group. There are two problems. First, the number of words in the matrix cells varies. Second, some cells are empty because such words do not exist or are extremely rare. So if we want to see an objective distribution of all eight syllable groups, each cell, which means one syllable group for one sound in the preceding context, should be represented equally. And apart from that, empty cells should not be included. This gives us an overview of an average yod variant distribution per syllable group, consisting of full cells.



yod distribution in syllable groups in WL &RP in Braintree					
	yod variant, %				
syllable groups	1	2	3	4	total
1	29	10	24	37	100
2	24	7	31	38	100
3	21	6	36	37	100
4	43	8	24	26	100
5	44	7	20	29	100
6	29	12	32	28	100
7	46	11	36	6	100
8	39	4	42	14	100

Fig. 4.14 Yod distribution in syllable groups in WL &RP (group mean from full cells only)

Tab. 4.6 Yod distribution in syllable groups in WL &RP (group mean from full cells only)

preceding context	syllable group	yod variant 1	2	3	4	total	%	yod variant 1	2	3	4	total
d	**1**	126	97	170	25	418		30	23	41	6	100
l	**1**	52	0	0	502	554		9	0	0	91	100
n	**1**	141	52	51	35	279		51	19	18	13	100
s	**1**	142	0	0	411	553		26	0	0	74	100
st	**1**	49	15	69	6	139		35	11	50	4	100
t	**1**	56	44	172	8	280		20	16	61	3	100
th	**1**	0	0	0	0	0		0	0	0	0	-
z	**1**	21	0	0	39	60		35	0	0	65	100
		587	**208**	**462**	**1026**	**2283**	**group mean**	**29**	**10**	**24**	**37**	100
d	**2**	67	45	220	17	349		19	13	63	5	100
l	**2**	10	0	0	467	477		2	0	0	98	100
n	**2**	102	52	81	41	276		37	19	29	15	100
s	**2**	82	0	0	257	339		24	0	0	76	100
st	**2**	84	13	222	28	347		24	4	64	8	100
t	**2**	83	60	253	21	417		20	14	61	5	100
th	**2**	17	0	0	25	42		40	0	0	60	100
z	**2**	0	0	0	0	0		0	0	0	0	-
		445	**170**	**776**	**856**	**2247**	**group mean**	**24**	**7**	**31**	**38**	100
d	**3**	29	17	64	20	130		22	13	49	15	100
l	**3**	7	0	0	129	136		5	0	0	95	100
n	**3**	105	35	185	89	414		25	8	45	21	100
s	**3**	108	1	0	239	348		31	0	0	69	100
st	**3**	93	19	202	32	346		27	5	58	9	100
t	**3**	22	15	84	14	135		16	11	62	10	100
th	**3**	0	0	0	0	0		0	0	0	0	-
z	**3**	0	0	0	0	0		0	0	0	0	-
		364	**87**	**535**	**523**	**1509**	**group mean**	**21**	**6**	**36**	**37**	100

d	**4**	123	70	265	25	483		25	14	55	5	100
l	**4**	10	0	0	265	275		4	0	0	96	100
n	**4**	127	27	70	48	272		47	10	26	18	100
s	**4**	239	21	29	48	337		71	6	9	14	100
st	**4**	0	0	0	0	0		0	0	0	0	-
t	**4**	67	47	279	6	399		17	12	70	1	100
th	**4**	170	0	0	62	232		73	0	0	27	100
z	**4**	212	33	21	60	326		65	10	6	18	100
							group					
		948	**198**	**664**	**514**	**2324**	**mean**	**43**	**8**	**24**	**26**	100
d	**5**	38	20	82	20	160		24	13	51	13	100
l	**5**	0	0	0	0	0		0	0	0	0	-
n	**5**	39	16	26	17	98		40	16	27	17	100
s	**5**	83	0	0	251	334		25	0	0	75	100
st	**5**	0	0	0	0	0		0	0	0	0	-
t	**5**	0	0	0	0	0		0	0	0	0	-
th	**5**	115	0	0	17	132		87	0	0	13	100
z	**5**	0	0	0	0	0		0	0	0	0	-
							group					
		275	**36**	**110**	**305**	**726**	**mean**	**44**	**7**	**20**	**29**	100
d	**6**	38	25	71	4	138		28	18	51	3	100
l	**6**	12	0	0	186	198		6	0	0	94	100
n	**6**	156	43	42	26	267		58	16	16	10	100
s	**6**	0	0	0	0	0		0	0	0	0	-
st	**6**	0	0	0	0	0		0	0	0	0	-
t	**6**	133	65	321	19	538		25	12	60	4	100
th	**6**	0	0	0	0	0		0	0	0	0	-
z	**6**	0	0	0	0	0		0	0	0	0	-
							group					
		339	**133**	**434**	**235**	**1141**	**mean**	**29**	**12**	**32**	**28**	100
d	**7**	30	61	497	5	593		5	10	84	1	100
l	**7**	411	0	0	2	413		100	0	0	0	100
n	**7**	161	112	110	32	415		39	27	27	8	100
s	**7**	103	70	144	17	334		31	21	43	5	100
st	**7**	0	0	0	0	0		0	0	0	0	-
t	**7**	31	100	648	2	781		4	13	83	0	100
th	**7**	129	0	0	11	140		92	0	0	8	100
z	**7**	79	8	24	33	144		55	6	17	23	100
							group					
		944	**351**	**1423**	**102**	**2820**	**mean**	**46**	**11**	**36**	**6**	100
d	**8**	45	34	249	15	343		13	12	71	4	100
l	**8**	296	0	0	22	318		93	0	0	7	100
n	**8**	91	28	176	68	363		25	8	48	19	100
s	**8**	128	3	100	89	320		40	1	31	28	100
st	**8**	28	5	85	14	132		21	4	64	11	100
t	**8**	20	28	319	30	397		5	7	80	8	100
th	**8**	89	0	0	28	117		76	0	0	24	100
z	**8**	0	0	0	0	0		0	0	0	0	-
							group					
		697	**98**	**929**	**266**	**1990**	**mean**	**39**	**4**	**42**	**14**	100

Words with yod in main stress on the first syllable, groups 1 to 3, show a pattern: the most frequent variant is yod dropping with 37–38% in all three groups; coalescence increases with the number of syllables, while coalescence with yod and yod retention decrease with the number of syllables, so that yod presence drops from 39% in group 1 to 27% in group 3. This means that for instance *due* is more likely to be pronounced /dju:/ than /ʤu:/ and *dubious* /ʤu:bɪəs/ rather than /dju:bɪəs/, unless they are both pronounced without yod /du:/ and /du:bɪəs/, which is equally possible.

Group 4, yod in main stress on the second syllable, and 5, yod in secondary stress, have a similar pattern, different from groups 1 to 3. Yod retention is the dominant variant and, together with coalescence with yod, represents over 50% of the variant distribution. Coalescence and dropping share almost equally the remaining half in group 4, while in group 5 dropping occurs in three fifths of the cases.

Group 6, yod in an unstressed syllable separated from the main stress by another syllable, combines the pattern of the stressed groups. The proportion of yod-present variants (1&2) equals the one in group 1, while the amount of yod dropping is similar to groups 4 and 5, therefore smaller than in group 1, which suggests that there is more coalescence in group 6. This supports Bauer's observation that yod in this position behaves more like in a stressed than an unstressed environment.

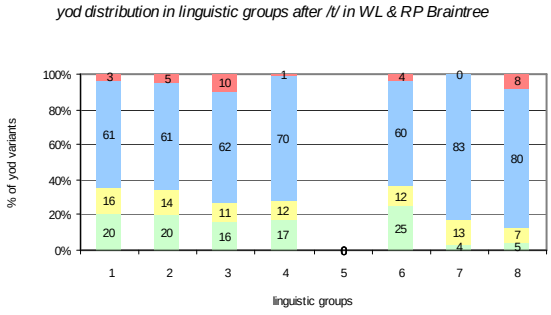
The other two unstressed-syllable groups are not alike. They both have far less yod dropping than stressed syllables. Group 7, yod after a stressed syllable, has most yod-present variants (1&2) of all groups – 57% and the least dropping – 6%. Group 8, yod before a stressed syllable, has more coalescence and dropping than group 7 at the expense of yod retaining variants.

Even though there are differences among the eight syllable groups, only two of Jones's rules on syllable stress and length introduced in chapter 3.2 are valid in general for describing yod presence or absence: 1–3 group pattern and the diversity of the unstressed-syllable groups 7 and 8.

4.4.5 Syllable groups in different preceding contexts

Since some yod variants do not exist in all syllable groups after certain sounds (to be specific there is no coalescence after /l/ and /θ/ at all, and /s/ and /z/ can be coalesced in a non-initial syllable only), it is necessary to look at the yod realisations after each alveolar separately to see the yod distribution with only the existing pronunciation options, to observe how the distributions vary, and possibly after which alveolars yod has a similar behaviour.

Syllable groups after /t/



t	yod variant						yod variant			
	1	2	3	4	total	%	1	2	3	4
1	56	44	172	8	280		20	16	61	3
2	83	60	253	21	417		20	14	61	5
3	22	15	84	14	135		16	11	62	10
4	679	47	279	6	399		17	12	70	1
5	0	0	0	0	0		0	0	0	0
6	133	65	321	19	538		25	12	60	4
7	31	100	648	2	781		4	13	83	0
8	20	28	319	30	397		5	7	80	8
					2947					

Fig. 4.15 Syllable groups after /t/

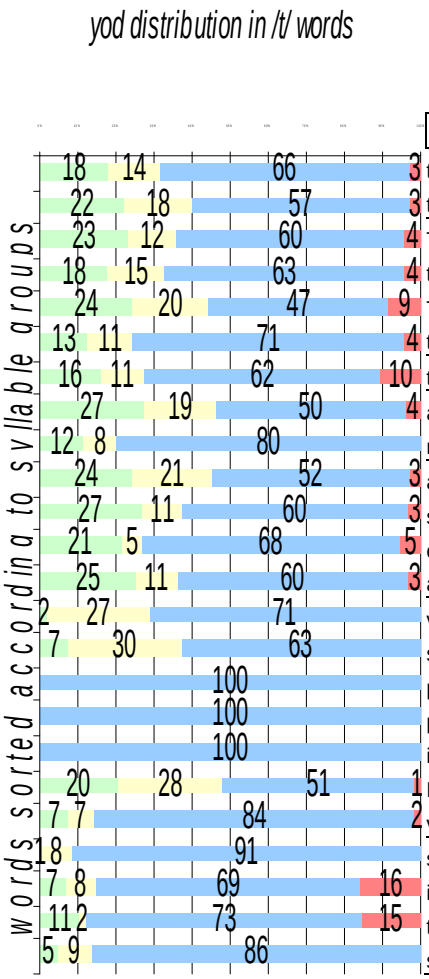
Coalescence is clearly the dominant variant after /t/ in all syllable groups. Yod dropping on the other hand hardly appears.

There seems to be a pattern in groups 1 to 3. Coalescence prevails and is equal in all three groups, 61–62%. Dropping increases and yod retaining variants decrease with the number of syllables. The yod distribution of group 6 is similar to group 1.

Most yod dropping (10%) occurs in group 3, at the expense of yod retaining variants.

Most coalescence (83% and 80%) occurs in unstressed syllables, in groups 7 and 8. There is no yod dropping at all in group 7, e.g. *virtue* or *perpetual*.

While this provides a clearer picture of the distribution of yod variants after a particular alveolar in a particular stress pattern, there are, in some cases, noticeable distinctions between individual words within one cell. That is why the yod distribution in individual words will be added for illustration and as a possible help in further research.



/t/ words	group	1	2	3	4	total	1	2	3	4
tube	1	25	19	92	4	140	18	14	66	3
tune	1	31	25	80	4	140	22	18	57	3
Tuesday	2	32	17	82	6	137	23	12	60	4
tuna	2	25	21	88	6	140	18	15	63	4
Tudor	2	17	14	33	6	70	24	20	47	9
tulip	2	9	8	50	3	70	13	11	71	4
tubular	3	22	15	84	14	135	16	11	62	10
attuned	4	36	25	66	5	132	27	19	50	4
mature	4	31	22	213	1	267	12	8	80	0
attitude	6	34	29	72	4	139	24	21	52	3
substitute	6	55	22	122	6	205	27	11	60	3
constitute	6	28	7	89	7	131	21	5	68	5
aptitude	6	16	7	38	2	63	25	11	60	3
virtue	7	3	37	98	0	138	2	27	71	0
statue	7	10	40	84	0	134	7	30	63	0
perpetual	7	0	0	123	0	123	0	0	100	0
punctual	7	0	0	197	0	197	0	0	100	0
intellectual	7	0	0	64	0	64	0	0	100	0
Neptune	7	14	19	35	1	69	20	28	51	1
voluptuousness	7	4	4	47	1	56	7	7	84	2
situation	8	1	11	127	0	139	1	8	91	0
intuition	8	9	10	88	20	127	7	8	69	16
tuition	8	7	1	48	10	66	11	2	73	15
statuette	8	3	6	56	0	65	5	9	86	0

Fig. 4.16 Yod distribution in /t/ words

With reference to Daniel Jones's notes on the length of English vowels (Jones, 1972:232) and the hypothesis on yod behaviour derived from them (chapter 3.2), there is no consistent difference in yod presence in stressed as opposed to unstressed syllables. However, if we look at words with yod in stressed syllables and words with yod in syllable-final position in unstressed syllables (words in group 6 and words in group 7 marked green in the matrix: *attitude, substitute, aptitude, constitute, virtue, statue* and *Neptune*) as one grouping and the rest of the words in unstressed syllables (*perpetual, punctual, intellectual, voluptuousness, situation, intuition* and *statuette*) as another grouping, there is a noticeable difference: the former has up to 48% yod presence (yod variant 1, retention and 2, coalescence with yod)

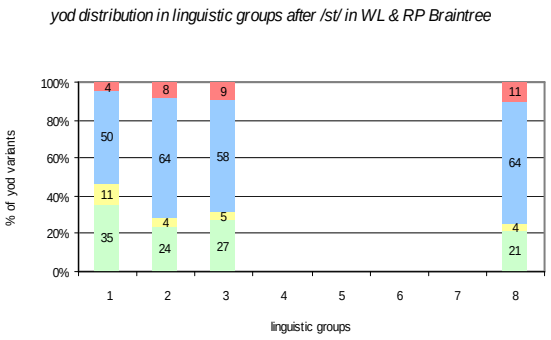
compared to the latter with no more than 15% yod presence. Words of Latin origin ending in *-tual* are 100% coalesced.

Punctual is sometimes pronounced /pʌŋkʃuəl/. The process in the change is most likely to be deaffrication, that is if the word would have been pronounced /pʌŋkʧuəl/.

Tune, situation and *perpetual* are the words from Wells's *LPD Pronunciation Preference Survey 1998.* There is a considerable difference between the results. Wells's respondents mostly retain yod in all three words, whereas the Braintree respondents mostly use coalescence. The different results might partly be caused by the research method and yod salience. Wells's informants claimed to pronounce the words according to their own judgement. This can be compared to Braintree informants' self-evaluation task (4.6): they were supposed to choose how they pronounce *situation*. With a bit of exaggeration we could claim that the results are the same as Wells's. Wells's informants, who are mostly language aware, could choose from three yod variants: retention, coalescence and dropping. My informants, mostly language unaware, had a choice of four variants. If we admit a possibility that /ʧ/ is not salient to most of my informants within the /ju/ pronunciation range, then they would choose either a variant with yod (1 or 2) or without yod (3 or 4). This produces identical results to Wells's: yod retaining variants 65% and yod dropping variants 35%. From the point of view of speech perception and production, coalesced /ʧ/ can sound similar to relaxed or heavily aspirated or palatalised /t/. Therefore variants (1) and (2) can sound identical to most people. Then it is the yod presence or absence that distinguishes between the coalesced variants (2) and (3). The fact that /tju/ is an unstressed syllable makes it less likely that even language aware speakers will notice the exact pronunciation. This statement is proved by the self-evaluation in *Tuesday*: the awareness or the salience of the yod variants actually pronounced by the informant is definitely higher than in *situation*.

	Wells's informants			Braintree informants			
word	retention	coalescence	dropping	retention	coalescence+j	coalescence	dropping
tune	64 %	35 %	1 %	22 %	18 %	57 %	3 %
situation	65 %	35 %	-	1 %	8 %	91 %	-
perpetual	57 %	42 %	-	-	-	100 %	-

Syllable groups after /st/

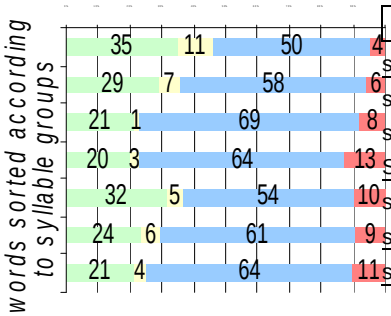


st	yod variant					%	yod variant			
	1	2	3	4	total		1	2	3	4
1	49	15	69	6	139		35	11	50	4
2	84	13	222	28	347		24	4	64	8
3	93	19	202	32	346		27	5	58	9
4	0	0	0	0	0		0	0	0	0
5	0	0	0	0	0		0	0	0	0
6	0	0	0	0	0		0	0	0	0
7	0	0	0	0	0		0	0	0	0
8	28	5	85	14	132		21	4	64	11
					964					

Fig. 4.17 Syllable groups after /st/

The /st/ cluster was included to be compared with /t/. In general they are similar and coalescence is the most frequent variant. The 1–3 group pattern is not so clear here but nevertheless, yod dropping increases with the number of syllables and there are fewer yod retaining variants in group 2 and 3 than in group 1. There is only one word, *stupidity*, in unstressed syllables, which has far more retention than a word of the same pattern after /t/ and so it does not differ from the patterns in stressed syllables. It might be caused by a combination of factors: some stress on /stju:/ due to its word initial position and the number of syllables after /stju:/.

yod distribution in /st/ words



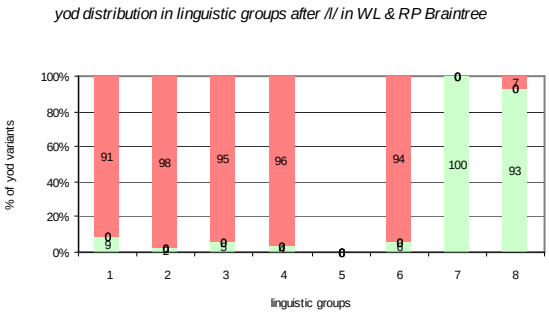
/st/ words	group	1	2	3	4	total	1	2	3	4
stew	1	49	15	69	6	139	35	11	50	4
stupid	2	40	9	80	8	137	29	7	58	6
steward	2	30	2	97	11	140	21	1	69	8
Stewart's	2	14	2	45	9	70	20	3	64	13
studious	3	43	7	73	13	136	32	5	54	10
studio	3	50	12	129	19	210	24	6	61	9
stupidity	8	28	5	85	14	132	21	4	64	11

Fig. 4.18 Yod distribution in /st/ words

Apart from the possible group pattern mentioned above, nothing interesting emerges. Words with the same morpheme will be discussed later and shown separately in the word list and reading passages.

There were several cases where the place of articulation changes at the beginning of the cluster, so that /stju:/ and /stʃu:/ is pronounced /ʃtju:/ and /ʃtʃu:/ respectively, e.g. in *steward*, *stew*, *stupid* or *stupidity*.

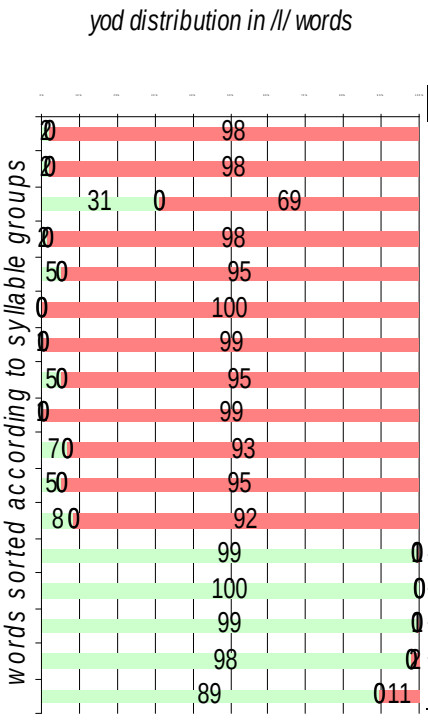
Syllable groups after /l/



l	yod variant						yod variant			
	1	2	3	4	total	%	1	2	3	4
1	52	0	0	502	554		9	0	0	91
2	10	0	0	467	477		2	0	0	98
3	7	0	0	129	136		5	0	0	95
4	10	0	0	265	275		4	0	0	96
5	0	0	0	0	0		0	0	0	0
6	12	0	0	186	198		6	0	0	94
7	411	0	0	2	413		100	0	0	0
8	296	0	0	22	318		93	0	0	7
					2371					

Fig. 4.19 Syllable groups after /l/

As mentioned before there is no coalescence after /l/, even though in some cases /l/ was strongly palatalised. There is a clear division after /l/: yod is dropped in SS and group 6 and retained in US. There are a few exceptions that can be seen below: *lure* and *salutation*.



/l/ words	group	1	2	3	4	total	1	2	3	4
Luke	1	6	0	0	274	280	2	0	0	98
luce	1	3	0	0	133	136	2	0	0	98
lure	1	43	0	0	95	138	31	0	0	69
lucid	2	2	0	0	129	131	2	0	0	98
lunar	2	7	0	0	130	137	5	0	0	95
Lucy	2	0	0	0	70	70	0	0	0	100
Luton	2	1	0	0	138	139	1	0	0	99
lucrative	3	7	0	0	129	136	5	0	0	95
solution	4	1	0	0	139	140	1	0	0	99
salute	4	9	0	0	126	135	7	0	0	93
absolute	6	7	0	0	132	139	5	0	0	95
absolutely	6	5	0	0	54	59	8	0	0	92
value	7	137	0	0	1	138	99	0	0	1
valuable	7	136	0	0	0	136	100	0	0	0
volumes	7	138	0	0	1	139	99	0	0	1
valuation	8	135	0	0	3	138	98	0	0	2
salutation	8	161	0	0	19	180	89	0	0	11

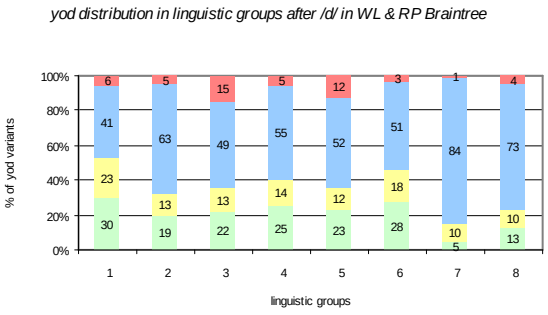
Fig. 4.20 Yod distribution in /l/ words

The reason for the different proportions of yod distribution in *lure* compared to all the other stressed syllables words might be the *-ure* ending discussed in more detail in words after /d/ below. The yod dropping in *salutation* (US) is most likely connected with the common yod dropping in *salute* (SS).

There were at least 2% of strongly palatalised l /ʎ/, i.e. 45 utterances, by 22 different informants of all age groups mostly in *absolute, salute, luce, lucid* and *solution*.

Lure in Wells's *LPD Pronunciation Preference Survey 1998* has 58% yod retention and 42% of yod dropping, the results in the Braintree study are reversed with 31% retention and 69% dropping.

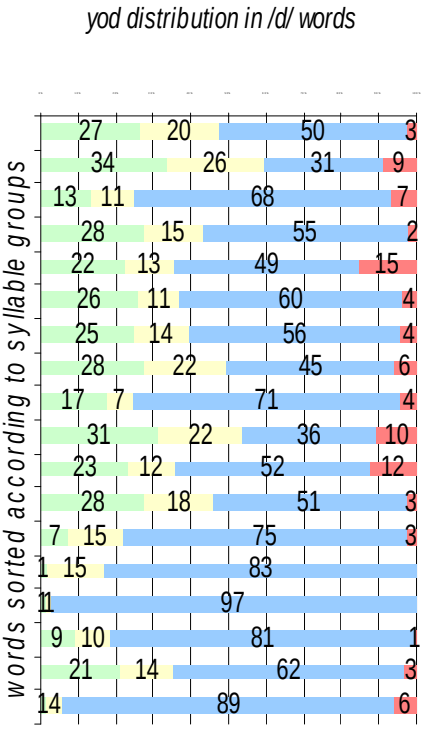
Syllable groups after /d/



	yod variant						yod variant			
d	1	2	3	4	total	%	1	2	3	4
1	126	97	170	25	418		30	23	41	6
2	67	45	220	17	349		19	13	63	5
3	29	17	64	20	130		22	13	49	15
4	123	70	265	25	483		25	14	55	5
5	38	20	84	20	162		23	12	52	12
6	38	25	71	4	138		28	18	51	3
7	30	61	497	5	593		5	10	84	1
8	45	34	249	15	343		13	10	73	4
					2616					

Fig. 4.21 Syllable groups after /d/

The pattern after /d/ is the same in most of the syllable groups: coalescence is the most frequent variant, followed by yod retention and coalescence with yod. The least common variant is yod dropping. The 1–3 group pattern is not so clear here as with /t/. Unstressed syllables, groups 7 and 8, have more coalescence than stressed syllables at the expense of retention and dropping.



/d/ words	group	1	2	3	4	total	1	2	3	4
due	1	56	43	105	6	210	27	20	50	3
dew	1	70	54	65	19	208	34	26	31	9
during	2	28	24	143	14	209	13	11	68	7
duty	2	39	21	77	3	140	28	15	55	2
dubious	3	29	17	64	20	130	22	13	49	15
produced	4	36	15	83	5	139	26	11	60	4
reduce	4	35	20	78	6	139	25	14	56	4
induced	4	19	15	31	4	69	28	22	45	6
endure	4	12	5	49	3	69	17	7	71	4
inducement	4	21	15	24	7	67	31	22	36	10
duodenal	5	38	20	84	20	162	23	12	52	12
residue	6	38	25	71	4	138	28	18	51	3
module	7	10	20	103	4	137	7	15	75	3
schedule	7	2	21	114	0	137	1	15	83	0
individual	7	2	2	134	0	138	1	1	97	0
deciduous	7	16	18	146	1	181	9	10	81	1
duration	8	43	28	125	7	203	21	14	62	3
education	8	2	6	124	8	140	1	4	89	6

Fig. 4.22 Yod distribution in /d/ words

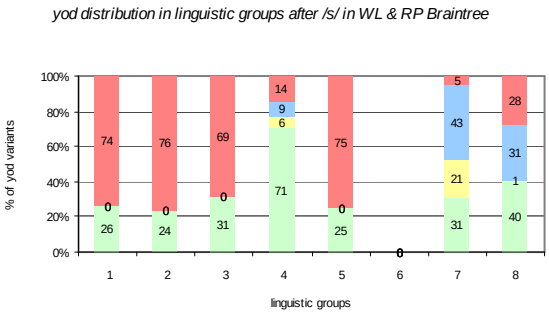
There is an interesting difference between the homophones *due* and *dew* in group 1. The adjective *due* has 20% more coalescence than the noun *dew*. It could either be explained by the different parts of speech or the spelling. Unfortunately, there is no other /ju/ word spelt with *-ew-* after /d/ in the study. Another example of different parts of speech is the preposition *during*, which has considerably more coalescence than a noun from the same group *duty*. On the other hand, the combination of /ju/ with *r* might have a bearing on the higher occurrence of coalescence in *during*. Alveolars followed by *-ure* or *-ur-*, pronounced /uə/ or /u(ə)r-/, seem to be coalesced more frequently than when they are followed by other sounds. This also happens in the case of *endure*. So whether a part of speech has an effect on yod pronunciation is not quite clear but a schwa in a combination with *r* following a potential /ju/ sound, often a *-ure-* spelling, seems to contribute to a coalescence tendency, because *during* and *endure* have the highest number of coalescence from groups 1 to 6. And so does *mature* from the /t/ group. In a way, *lure* is also very different from the other words after /l/ in that it has 31% retention while the others have none or 8% at most. This observation does not apply to unstressed syllables, groups 7 and 8.

Interestingly, *due* and *residue* have almost an identical yod distribution, even though they are different parts of speech. The same spelling of *due* seems to have greater influence on the pronunciation than its homophone *dew*.

Another observation concerns frequency, which is shown in the matrix next to every word and refers to the number of occurrences in the *British National Corpus*. The less frequent words from a syllable group tend to have more yod retaining variants, e.g. *dew* is rarer than *due*, *deciduous* is rarer than *individual* etc. This principle does not apply to *endure*, but this may be due to the *-ure* ending. These are both mere hypotheses which might be explored further.

During and *schedule* are the words from Wells's *LPD Pronunciation Preference Survey 1998*. The results are dissimilar again in the same way. The most frequent variant with Wells's respondents is yod retention 65% and 79% respectively, whereas with Braintree respondents it is coalescence.

Syllable groups after /s/



s	yod variant					%	yod variant			
	1	2	3	4	total		1	2	3	4
1	142	0	0	411	553		26	0	0	74
2	82	0	0	257	339		24	0	0	76
3	108	1	0	239	348		31	0	0	69
4	239	21	29	48	337		71	6	9	14
5	83	0	0	251	334		25	0	0	75
6	0	0	0	0	0		0	0	0	0
7	103	70	144	17	334		31	21	43	5
8	128	3	100	89	320		40	1	31	28
					2565					

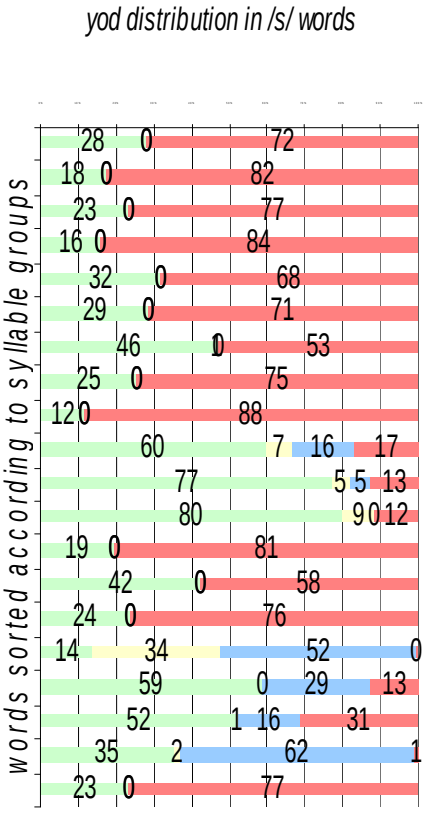
Fig. 4.23 Syllable groups after /s/

As mentioned in the overview of the previous context, /sju/ is a problematic sound in that it can be coalesced only in word-non-initial positions, which is why there is no coalescence in syllable groups 1, 2, 3 and in this study also in group 5 and *superfluous* in group 8.

The most frequent yod variant in the groups where coalescence is not possible, i.e. stressed syllables except group 4, is yod dropping, which accounts for up to three quarters of the distribution. 1–3 group pattern does not occur here.

Even though coalescence is possible in group 4, i.e. *assume, pursued* and *consume*, it accounts to only 9% and 6% with yod. Over 70% of the yod distribution is yod retention, which makes a reverse contrasting pattern with the other stressed-syllable groups.

The unstressed-syllable groups vary: there is over 20% of coalescence with yod in group 7 as opposed to 1% in group 8; and over 20% more yod dropping in group 8. The typical unstressed-syllable pattern with a majority of coalescence does not apply with /s/.



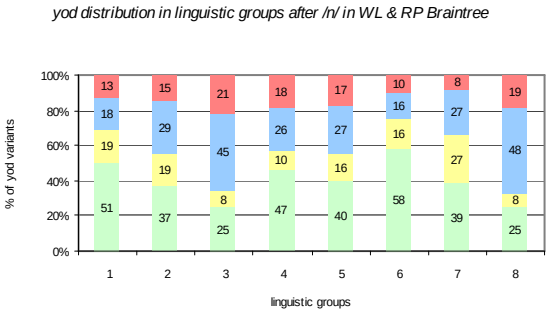
/s/ words	group	1	2	3	4	total	1	2	3	4
suit	1	118	0	0	299	417	28	0	0	72
sue	1	24	0	0	112	136	18	0	0	82
super	2	32	0	0	107	139	23	0	0	77
Susan's	2	11	0	0	59	70	16	0	0	84
sewin	2	19	0	0	41	60	32	0	0	68
suet	2	20	0	0	50	70	29	0	0	71
suitable	3	65	1	0	74	140	46	1	0	53
Superman	3	35	0	0	104	139	25	0	0	75
suicide	3	8	0	0	61	69	12	0	0	88
assume	4	81	9	22	23	135	60	7	16	17
pursued	4	103	6	7	17	133	77	5	5	13
consumed	4	55	6	0	8	69	80	9	0	12
suicidal	5	39	0	0	162	201	19	0	0	81
suitability	5	28	0	0	38	66	42	0	0	58
superstition	5	16	0	0	51	67	24	0	0	76
issue	7	29	70	108	1	208	14	34	52	0
peninsula	7	74	0	36	16	126	59	0	29	13
insulation	8	70	1	22	42	135	52	1	16	31
sensuality	8	44	2	78	1	125	35	2	62	1
superfluous	8	14	0	0	46	60	23	0	0	77

Fig. 4.24 Yod distribution in /s/ words

Suet and especially *sewin* are rather uncommon words. Perhaps this explains why there is more yod retention than in the other two-syllable /s/ words. The difference of yod distribution in group 3 is quite discernible. *Superman*, an American character, might be influenced by the yod dropping American pronunciation. In over 20% of the cases (more often in WL than RP) where yod is dropped, the /u/ in *Superman* is centralised/fronted and/or unrounded, which often makes it sound as if the yod was retained.

There are three cases of *assume* pronounced /ə'sʃjuːm/ and one /ə'sʃuːm/, all in the word list. *Consumed* is pronounced with a voiced fricative /kən'zjuːmd/ a few times and therefore has to be excluded from the analysis.

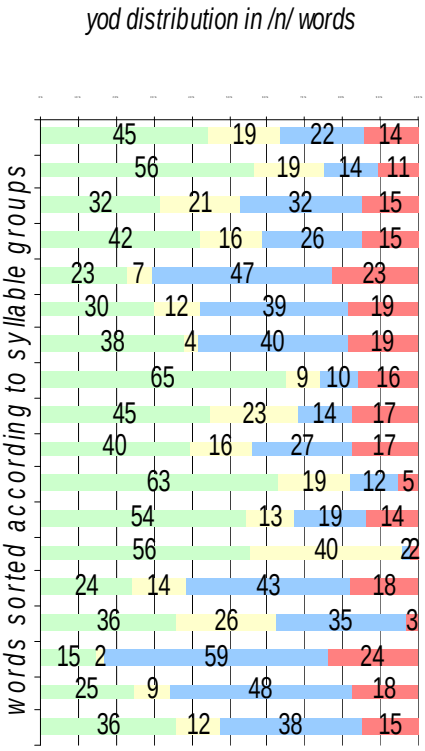
Syllable groups after /n/



n	yod variant					%	yod variant			
	1	2	3	4	total		1	2	3	4
1	141	52	51	35	279		51	19	18	13
2	102	52	81	41	276		37	19	29	15
3	105	35	185	89	414		25	8	45	21
4	127	27	70	48	272		47	10	26	18
5	39	16	26	17	98		40	16	27	17
6	156	43	42	26	267		58	16	16	10
7	161	112	110	32	415		39	27	27	8
8	91	28	176	68	363		25	8	48	19
					2384					

Fig. 4.25 Syllable groups after /n/

The most frequent variant in /n/ words is yod retention in most groups, only in groups 3 and 8 it is coalescence. The proportion of coalescence after /n/ is not as great as after /t/ or /d/. /n/ is an ideal example of the 1–3 group pattern: yod-present variants decrease with the number of syllables while coalescence and dropping increase. Groups 4 and 5 have a similar distribution and surprisingly also groups 3 (SS) and 8 (US). It seems that a combination of principles §870 (SS vs. US) and §886 (1–3 group pattern) may produce the same result in some contexts so that the shortest /ju/ pronunciation in stressed syllables, which are words from group 3, and the shortest /ju/ pronunciation in unstressed syllables, which are words from group 8, happen to have the same proportions of yod variants. No clear distinction between stressed and unstressed syllables is visible.



/n/ words	group	1	2	3	4	total	1	2	3	4
new	1	62	26	31	20	139	45	19	22	14
news	1	79	26	20	15	140	56	19	14	11
neutral	2	43	29	44	20	136	32	21	32	15
nuisance	2	59	23	37	21	140	42	16	26	15
nuclear	3	63	18	130	63	274	23	7	47	23
newcomer	3	42	17	55	26	140	30	12	39	19
renewal	4	51	5	53	25	134	38	4	40	19
renew	4	45	6	7	11	69	65	9	10	16
RENEWS	4	31	16	10	12	69	45	23	14	17
numismatic	5	39	16	26	17	98	40	16	27	17
revenue	6	81	25	16	7	129	63	19	12	5
avenue	6	75	18	26	19	138	54	13	19	14
menu	7	78	56	3	3	140	56	40	2	2
January	7	34	20	60	25	139	24	14	43	18
annual	7	49	36	47	4	136	36	26	35	3
neutrality	8	18	3	73	29	123	15	2	59	24
numerically	8	30	11	58	21	120	25	9	48	18
malnutrition	8	43	14	45	18	120	36	12	38	15

Fig. 4.26 Yod distribution in /n/ words

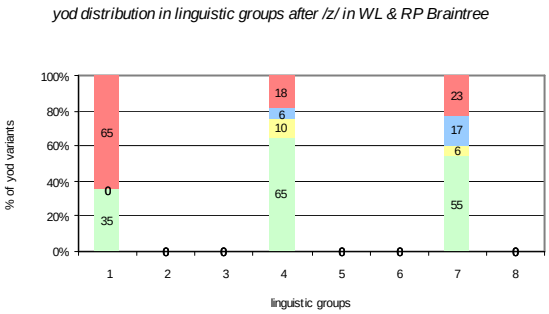
Yod distribution of /n/ words varies, so that it would be difficult to guess to which syllable group each word belongs should we mix them up.

The word-final position of yod in *menu* might be part of the reason why it has such a high percentage of the yod retaining variants compared to *January* and *annual* from the same syllable group (Jones §886).

January is pronounced /ʤænrɪ/ in one case and is therefore not included. This pronunciation is an example of a double syncope, the deletion of two vowels in the middle of a word. *January* with a single syncope /ʤænjərɪ/ is included as it does not distort the possible /ju/ sound.

Quite a frequent feature is a metathesis in *nuclear*, so for instance /njuːklɪə/ is altered to /njuːkɪlə/; and an “n –> j lowering” or “n-deletion” in *malnutrition* to /mæljə'trɪʃən/, which is excluded from the study.

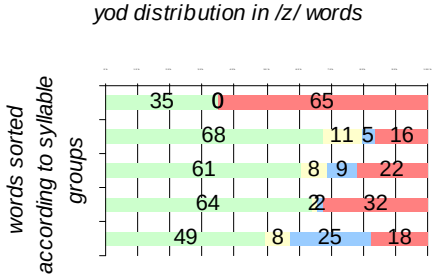
Syllable groups after /z/



z	yod variant					%	yod variant			
	1	2	3	4	total		1	2	3	4
1	21	0	0	39	60		35	0	0	65
2	0	0	0	0	0		0	0	0	0
3	0	0	0	0	0		0	0	0	0
4	212	33	21	60	326		65	10	6	18
5	0	0	0	0	0		0	0	0	0
6	0	0	0	0	0		0	0	0	0
7	79	8	24	33	144		55	6	17	23
8	0	0	0	0	0		0	0	0	0
					530					

Fig. 4.27 Syllable groups after /z/

Apart from *presume* and *presumably,* yod words after /z/ are rather unusual, which is why there are not many present in the study. /z/ in group 1 cannot be coalesced but the higher proportion of yod dropping versus the other groups can be seen even though *Zeus* is an uncommon word and a proper name. So the most common yod variant is yod dropping in group 1 and yod retention in groups 4 and 7.



/z/ words	group	1	2	3	4	total	1	2	3	4
Zeus	1	21	0	0	39	60	35	0	0	65
presumably	4	131	22	9	31	193	68	11	5	16
presume	4	81	11	12	29	133	61	8	9	22
resumé	7	34	1	1	17	53	64	2	2	32
Jesuit	7	45	7	23	16	91	49	8	25	18

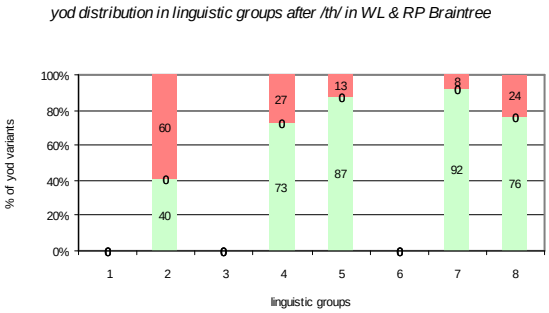
Fig. 4.28 Yod distribution in /z/ words

There is perhaps not as much coalescence in the unstressed-syllable words *resumé* and *Jesuit* as after the other phonemes in unstressed syllables due to their rareness. Rareness seems to affect the choice of a yod variant in unstressed syllables. If a person sees such a word for the first time, they will tend to retain yod, which in turn indicates that yod retention is (perhaps unconsciously) regarded as the unmarked form.

There were also serious reading difficulties, e.g. *resumé* is pronounced as a verb /rɪˈzjuːm/, which cannot be included. *Zeus* is sometimes pronounced the original Greek way /ze:us/ or a

combination of the Greek and English pronunciation /ziːəs/ was heard. *Presume* and *presumably* are pronounced with a devoiced /z/ – e.g. /prɪ'sjuːm/ and /prɪ'sjuːməblɪ/ in a few cases which are excluded.

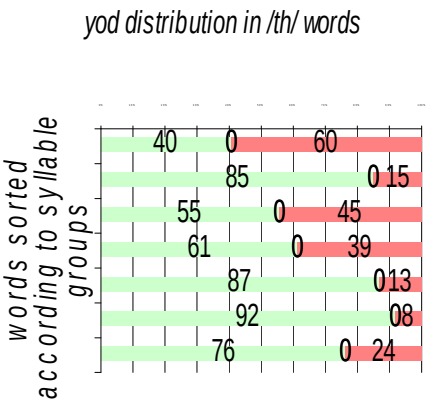
Syllable groups after /θ/



th	yod variant						yod variant			
	1	2	3	4	total	%	1	2	3	4
1	0	0	0	0	0		0	0	0	0
2	17	0	0	25	42		40	0	0	60
3	0	0	0	0	0		0	0	0	0
4	170	0	0	62	232		73	0	0	27
5	115	0	0	17	132		87	0	0	13
6	0	0	0	0	0		0	0	0	0
7	129	0	0	11	140		92	0	0	8
8	89	0	0	28	117		76	0	0	24
					663					

Fig. 4.29 Syllable groups after /θ/

There is no coalescence after /θ/. The most frequent yod variant is yod dropping in group 2 and yod retention in all other groups, i.e. groups 4, 5, 7 and 8. Group 2, however, is represented only by one word *thuya* and apart from a few people who were familiar with the plant, it seemed a rather exotic word to the majority. Therefore we may conclude with confidence that the most common yod variant after /θ/ is yod retention in both stressed and unstressed syllables.



/θ/ words	group	1	2	3	4	total	1	2	3	4
thuya	2	17	0	0	25	42	40	0	0	60
enthusiasm	4	109	0	0	19	128	85	0	0	15
anthurium	4	26	0	0	21	47	55	0	0	45
Methuselah	4	35	0	0	22	57	61	0	0	39
enthusiastic	5	115	0	0	17	132	87	0	0	13
Matthew	7	129	0	0	11	140	92	0	0	8
Lithuanian	8	89	0	0	28	117	76	0	0	24

Fig. 4.30 Yod distribution in /θ/ words

/θ/ and /z/ words in contrast to words with other phonemes, display more yod dropping, rather than yod retention, with more unusual words. This can be seen within the group, i.e. *anthurium* and *Methuselah* have more dropping than *enthusiasm*, as well as in general, e.g. *thuya* (or *Zeus*).
There are several cases of a) th-fronting and b) /θ/ realised as /t/ in *enthusiasm* and *enthusiastic* pronounced for instance /əˈnfjuːzɪæzəm/ or /əˈntjuːzɪæzəm/.

As we have seen, there are apparent tendencies of yod distribution across the syllable groups. However, drawing conclusions from the overall results should be done cautiously with regard to the preceding context, simply because the preceding consonants do not have the same characteristics which would enable an equal comparison, because some of them do not coalesce. Another, more equitable possibility for an overall diagram with yod distribution across syllable groups therefore includes only the preceding contexts with a similar characteristic, i.e. we need two overall diagrams: one with all four yod variants for /t, st, d, n/ and /s, z/ in word non-initial positions; and one with only yod retention and dropping for /l, θ/ and /s, z/ in word initial positions.

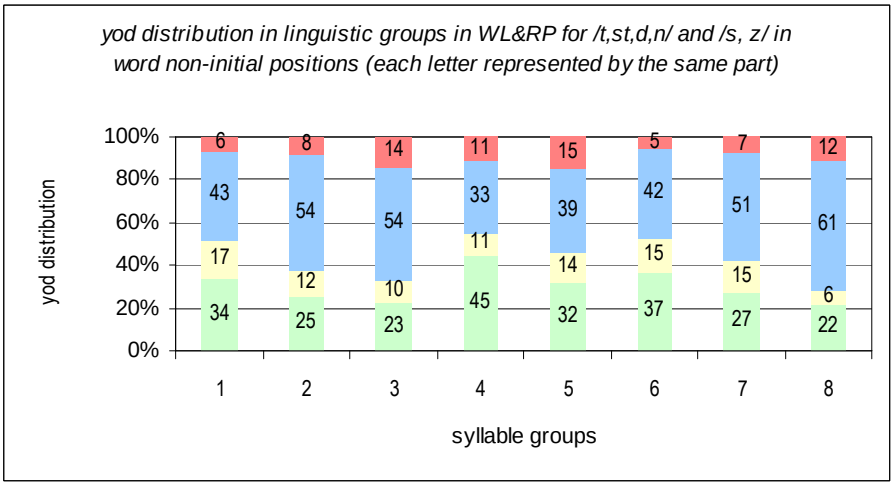


Fig. 4.31 yod distribution in syllable groups in WL &RP in Braintree for /t, st, d, n/ and /s, z/ in word non-initial positions

Tab. 4.7 Yod distribution in syllable groups in WL &RP in Braintree for /t, st, d, n/ and /s, z/ in word non-initial positions (full matrix cells only)

preceding context	syllable group	yod variant 1	2	3	4	total	%	yod variant 1	2	3	4	total
t,st,d,n	**1**	372	208	462	74	*1116*		34	17	43	6	100
t,st,d,n	**2**	336	170	776	107	*1389*		25	12	54	8	100
t,st,d,n	**3**	249	86	535	155	*1025*		23	10	54	14	100
t,d,n,s,z	**4**	768	198	664	187	*1817*		45	11	33	11	100
d,n	**5**	77	36	110	37	*260*		32	14	39	15	100
t,d,n	**6**	327	133	434	49	*943*		37	15	42	5	100
t,d,n,s,z	**7**	404	351	1423	89	*2267*		27	15	51	7	100
t,st,d,n,s*	**8**	298	98	929	170	1495		22	6	61	12	100
(*without *superfluous*)						10312						

The most dramatic change, compared to the diagram with all the preceding contexts together (Fig. 4.14), is the striking fall in the amount of yod dropping in all groups except 7 and 8; and a considerable increase of coalescence. Yod dropping is no longer the dominant variant in groups 1 to 3 but the 1 to 3 group pattern remains: yod retaining variants decrease with the number of syllables in a word while coalescence and in this case also dropping increase with the number of syllables. Coalescence is the most frequent variant in all groups except 4. It is almost impossible to distinguish different patterns of yod behaviour between stressed and unstressed syllables now.

The second diagram shows all the contexts where only yod retention and dropping occur, i.e. after /l, θ/ and /s, z/ in word initial positions.

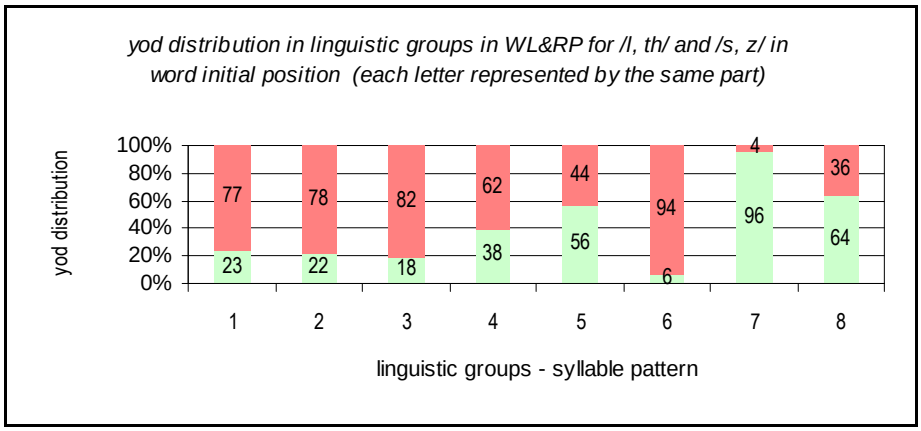


Fig. 4.32 Yod distribution in syllable groups in WL &RP for /l, θ/ and /s, z/ in word initial positions

Tab. 4.8 Yod distribution in syllable groups in WL &RP for /l, θ/ and /s, z/ in word initial positions

yod distribution in syllable groups in WL &RP in Braintree for /l, θ/ and /s, z/ in word initial positions (full matrix cells only)												
preceding context	*syllable group*	*yod variant* 1	2	3	4	*total*	*%*	*yod variant* 1	2	3	4	*total*
l,s,z	**1**	215	0	0	952	*1167*		23	0	0	77	100
l,θ,s	**2**	109	0	0	749	*858*		22	0	0	78	100
l,s	**3**	115	1	0	368	*484*		18	0	0	82	100
l,θ	**4**	180	0	0	327	507		38	0	0	62	100
θ,s	**5**	198	0	0	268	466		56	0	0	44	100
l	**6**	12	0	0	186	198		6	0	0	94	100
l,θ	***7***	540	0	0	13	553		96	0	0	4	100
l,θ,s*	***8***	399	0	0	96	495		64	0	0	36	100
(*only *superfluous*)						4728						

The more frequent yod variant of the two is yod dropping in stressed syllables and group 6, and yod retention in unstressed syllables. The discrepancy in group 5 is given by the different behaviour of yod after /s/ and /θ/, where /s/ words favour dropping in 75% whereas /θ/, represented only by *enthusiastic*, has yod dropping only in 13%. There is a very moderate suggestion of 1 to 3 group pattern: retention decreases and dropping increases with the number of syllables in the words. Had it not been for *superfluous*, group 8 would have 85% of yod retention which explicitly marks unstressed syllables (groups 7 and 8) from stressed syllables.

The distribution of yod variants in both diagrams is analogous:

1) 1–3 group pattern
2) more retention (Fig. 4.32)/yod retaining variants (Fig. 4.31) at the expense of dropping (Fig. 4.32)/coalescence and dropping (Fig. 4.31) in group 4 compared to groups 1–3
3) the yod distribution of group 6 is similar to that of stressed syllables
4) more yod dropping (Fig. 4.32)/coalescence and dropping (Fig. 4.31) in group 8 than in group 7

In conclusion, there are obvious stress patterns in the yod distribution analysis but yod variants are most accurately described considering the preceding context, which in many cases is the co-deciding factor for the choice of a yod variant.

In general, yod retention is typical of:

- yod words after /l/ in unstressed syllables
- yod words after /s, z, θ/ with /s, z, θ/ in non-initial position (except *issue* and *sensuality*)
- yod words after /n/ except for syllable groups 3 and 8.

Coalescence is typical of:

- yod words after /t, st, d/
- yod words after /n/ in syllable groups 3 and 8.

Yod dropping is typical of:

- yod words after /l/ in stressed syllables and syllable group 6
- yod words after /s/ with /s/ in initial position.

These observations suggest that any simple implicational scale would be inaccurate.

This chapter will close with a statistical result, showing in which word each yod variant occurs most.

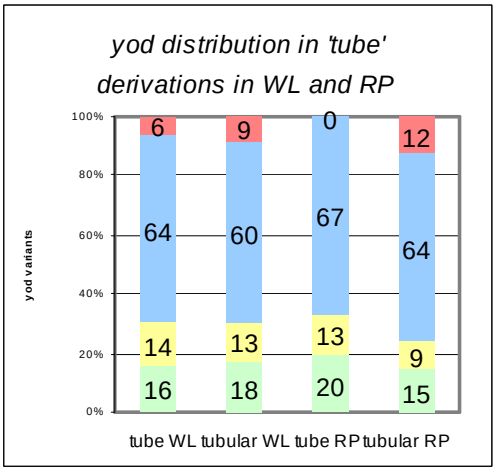
- Yod retention occurs 100% in *valuable*
- Coalescence with yod occurs 40% in *menu* (34% in *issue,* 30% in *statue)*
- Coalescence occurs 100% in words with *-tual* ending (*perpetual, punctual, intellectual*)
- Yod dropping occurs 100% in *Lucy* (98% in *luce* and *lucid* if we do not include proper names).

4.4.6 Words with the same morpheme

Do words with the same morpheme differ when the preceding context remains the same? The figures show a comparison of these words with mostly a different syllable group in the two styles where possible.

tube – tubular (SS)

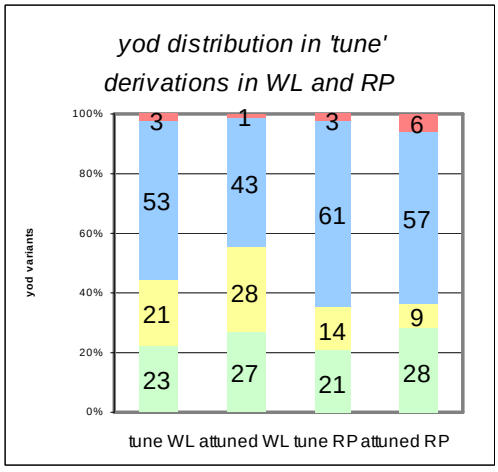
There is more coalescence in *tube* and more dropping in *tubular*. The 1–3 group pattern is visible in reading passages but not in the word list. Both words in reading passages show a slight variation of yod variant distribution compared to hardly any in the word list.



word	style	group	1	2	3	4	total	%	1	2	3	4
tube	WL	1	11	10	45	4	70		16	14	64	6
tubular	WL	3	12	9	41	6	68		18	13	60	9
tube	RP	1	14	9	47	0	70		20	13	67	0
tubular	RP	3	10	6	43	8	67		15	9	64	12

tune – attuned (SS)

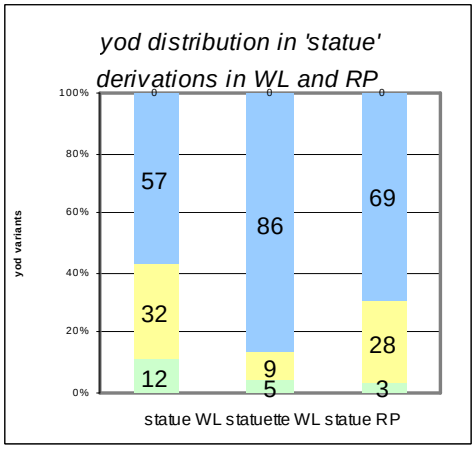
There are slightly more yod retaining variants in the word list than in reading passages at the expense of coalescence. *Attuned* has a higher percentage of yod retaining variants than *tune* in both styles but more in the word list.



word	style	group	1	2	3	4	total	%	1	2	3	4
tune	WL	1	16	15	37	2	70		23	21	53	3
attuned	WL	4	18	19	29	1	67		27	28	43	1
tune	RP	1	15	10	43	2	70		21	14	61	3
attuned	RP	4	18	6	37	4	65		28	9	57	6

***statue – statuette* (US)**

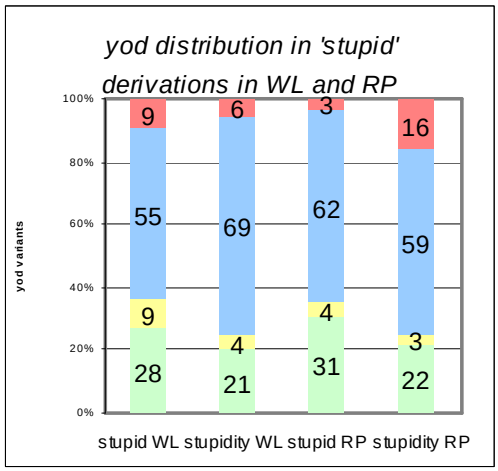
Coalescence is the most frequent variant in both words. As for the style, it is only possible to compare *statue*, which shows the typical pattern of more coalescence in reading passages at the expense of yod retaining variants. *Statuette* has 30% more coalescence than *statue*, which supports the theory of more yod dropping variants in group 8 than in group 7.



word	style	group	1	2	3	4	total	%	1	2	3	4
statue	WL	7	8	22	39	0	69		12	32	57	0
statuette	WL	8	3	6	56	0	65		5	9	86	0
statue	RP	7	2	18	45	0	65		3	28	69	0

***stupid – stupidity* (SS – US)**

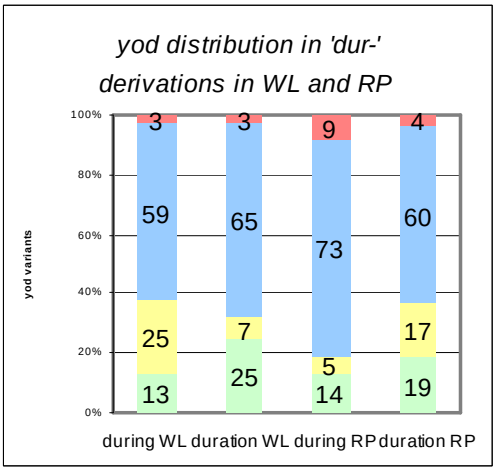
There are predictably fewer yod retaining variants in *stupidity* than in *stupid* in both styles (1–3 group pattern). *Stupidity* shows 10% more coalescence in the word list than in reading passages at the expense of dropping.



word	style	group	1	2	3	4	total	%	1	2	3	4
stupid	WL	2	19	6	38	6	69		28	9	55	9
stupidity	WL	8	14	3	47	4	68		21	4	69	6
stupid	RP	2	21	3	42	2	68		31	4	62	3
stupidity	RP	8	14	2	38	10	64		22	3	59	16

during – duration **(SS – US)**

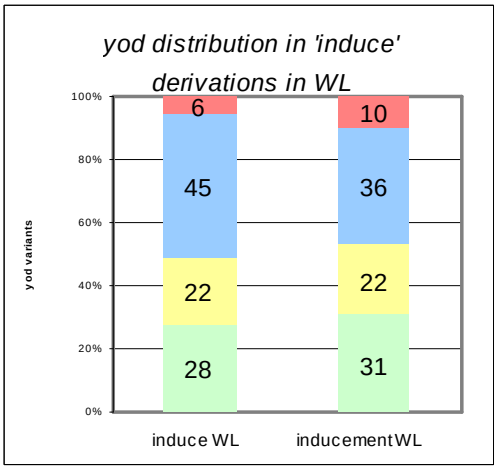
The pattern of '*stupid*' and '*dur-*' derivatives should theoretically be the same due to the similarity of the linguistic behaviour of /d/ and /t/ before yod and a comparison of two words from the same syllable groups, but it is not. The most frequent variant is again coalescence but a regular pattern as with '*stupid*' derivatives is missing. There is 17% more coalescence in *during* in reading passages compared to the word list. According to §870 (Jones 1972) *duration* should have fewer yod retaining variants than *during*. It is so in the word list but not in reading passages.



word	style	group	1	2	3	4	total	%	1	2	3	4
during	WL	2	9	17	41	2	69		13	25	59	3
duration	WL	8	17	5	45	2	69		25	7	65	3
during	RP	2	19	7	102	12	140		14	5	73	9
duration	RP	8	26	23	80	5	134		19	17	60	4

induced – inducement **(SS)**

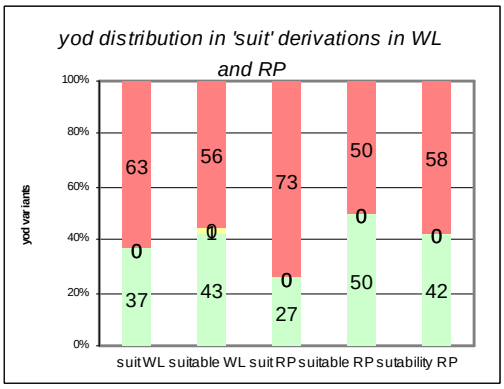
Style comparison is not possible. There is only a very slight difference: more coalescence and less retention in *induced*.



word	style	group	1	2	3	4	total	%	1	2	3	4
induced	WL	4	19	15	31	4	69		28	22	45	6
inducement	WL	4	21	15	24	7	67		31	22	36	10

***suit – suitable – suitability* (SS)**

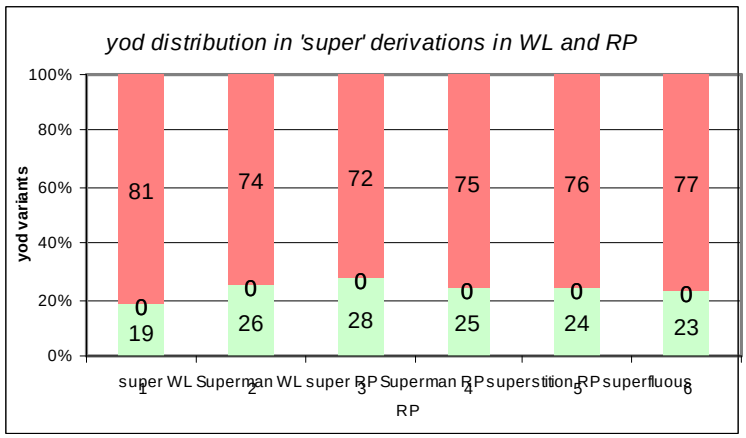
There is 23% more retention in *suitable* than in *suit* in reading passages; and 10% more dropping in *suit* in reading passages than in the word list. Yod dropping is the most frequent variant overall.



word	style	group	1	2	3	4	total	%	1	2	3	4
suit	WL	1	26	0	0	44	70		37	0	0	63
suitable	WL	3	30	1	0	39	70		43	1	0	56
suit	RP	1	92	0	0	255	347		27	0	0	73
suitable	RP	3	35	0	0	35	70		50	0	0	50
suitability	RP	5	28	0	0	38	66		42	0	0	58

***super – superman – superstitious – superfluous* (SS – SS – SS – US)**

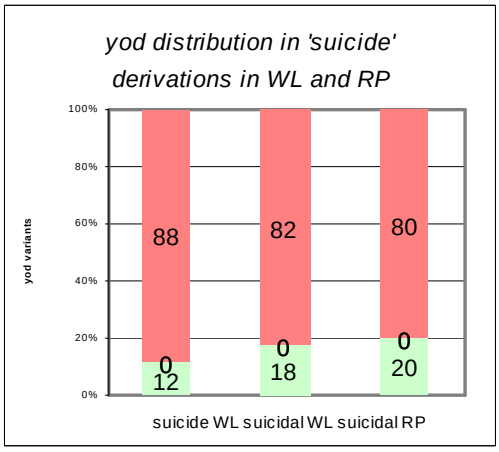
There are no significant differences between the words in either syllable group or style. *Super* has 9% more dropping in the word list than in reading passages.



word	style	group	1	2	3	4	total	%	1	2	3	4
super	WL	2	13	0	0	57	70		19	0	0	81
Superman	WL	3	18	0	0	52	70		26	0	0	74
super	RP	2	19	0	0	50	69		28	0	0	72
Superman	RP	3	17	0	0	52	69		25	0	0	75
superstition	RP	5	16	0	0	51	67		24	0	0	76
superfluous	RP	8	14	0	0	46	60		23	0	0	77

suicide – suicidal **(SS)**

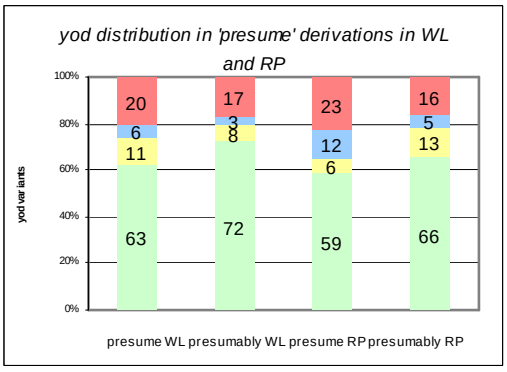
There is slightly more dropping in *suicide* than *suicidal* but no significant difference.



word	style	group	1	2	3	4	total	%	1	2	3	4
suicide	WL	3	8	0	0	61	69		12	0	0	88
suicidal	WL	5	12	0	0	55	67		18	0	0	82
suicidal	RP	5	27	0	0	107	134		20	0	0	80

presume – presumably **(SS)**

There is slightly more yod retention in *presumably* than in *presume* in both styles.

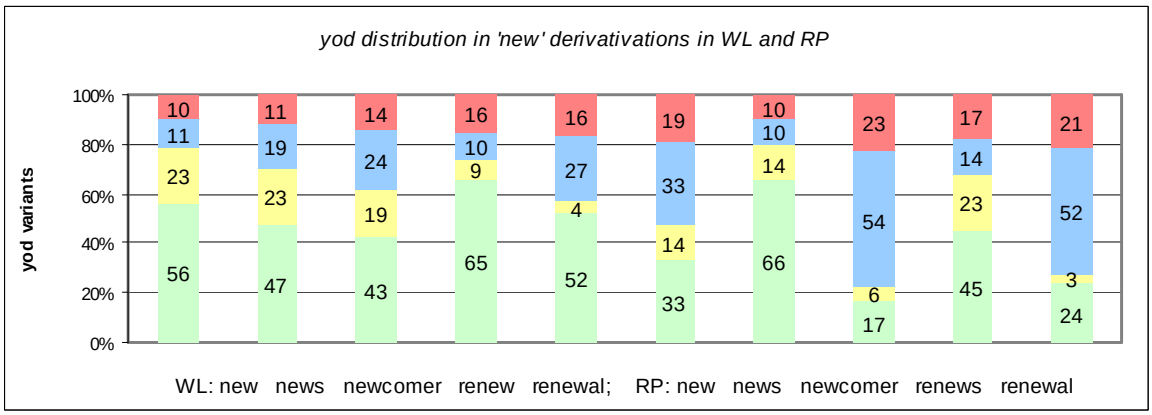


word	style	group	1	2	3	4	total	%	1	2	3	4
presume	WL	4	40	7	4	13	64		63	11	6	20
presumably	WL	4	47	5	2	11	65		72	8	3	17
presume	RP	4	41	4	8	16	69		59	6	12	23
presumably	RP	4	84	17	7	20	128		66	13	5	16

new – news – newcomer – renew(s) – renewal **(SS)**

There are quite different patterns between all /n/ words in the word list compared to reading passages, including changes in yod variant proportions. In the word list the dominant variant is retention; coalescence with yod is prominent in /n/-initial words only. In the reading passages there is overall more dropping and coalescence than in the word list: the most frequent variant in *new* is shared retention and coalescence (33% each), yod retention in *news* and *renews*, coalescence in *newcomer* and *renewal*. The 1–3 group pattern in *new/news* and *newcomer* can be seen in the word list and reading passages. The difference between /nju/ in

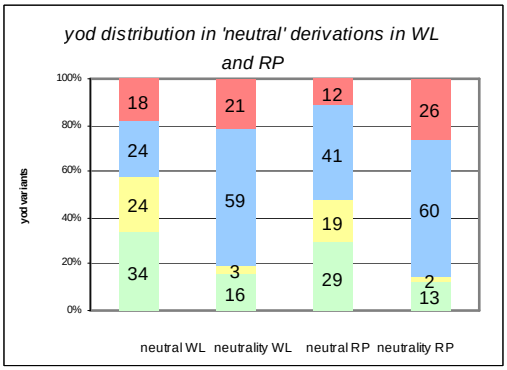
final and non-final syllable in *renew* and *renewal* respectively is also noticeable in both the word list and reading passages.



word	style	group	1	2	3	4	total	%	1	2	3	4
new	WL	1	39	16	8	7	70		56	23	11	10
news	WL	1	33	16	13	8	70		47	23	19	11
newcomer	WL	3	30	13	17	10	70		43	19	24	14
renew	WL	4	45	6	7	11	69		65	9	10	16
renewal	WL	4	35	3	18	11	67		52	4	27	16
new	RP	1	23	10	23	13	69		33	14	33	19
news	RP	1	46	10	7	7	70		66	14	10	10
newcomer	RP	3	12	4	38	16	70		17	6	54	23
RENEWS	RP	4	31	16	10	12	69		45	23	14	17
renewal	RP	4	16	2	35	14	67		24	3	52	21

***neutral – neutrality* (SS – US)**

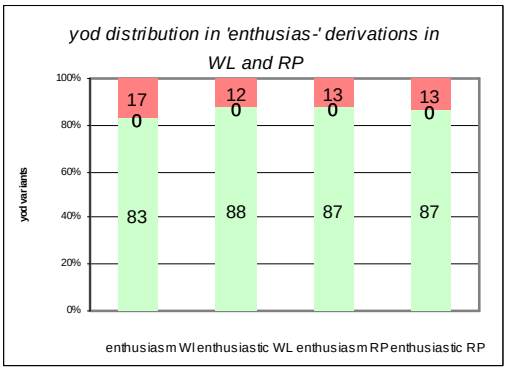
As expected, there is a noticeable difference in stress: about 20–35% more coalescence in *neutrality* compared to *neutral* at the expense of yod retaining variants (§870, Jones 1972).



word	style	group	1	2	3	4	total	%	1	2	3	4
neutral	WL	2	23	16	16	12	67		34	24	24	18
neutrality	WL	8	10	2	36	13	61		16	3	59	21
neutral	RP	2	20	13	28	8	69		29	19	41	12
neutrality	RP	8	8	1	37	16	62		13	2	60	26

enthusiasm – enthusiastic (SS)

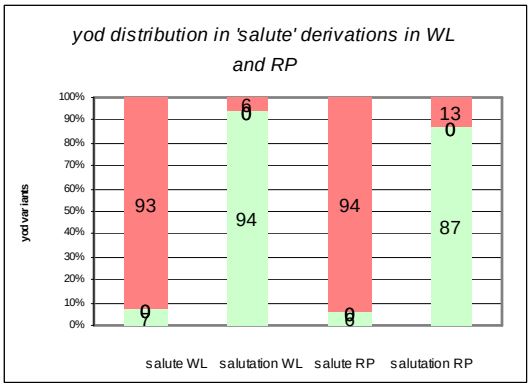
There are no differences in either style between the words. Yod retention is the major variant.



word	style	group	1	2	3	4	total	%	1	2	3	4
enthusiasm	WL	4	55	0	0	11	66		83	0	0	17
enthusiastic	WL	5	57	0	0	8	65		88	0	0	12
enthusiasm	RP	4	54	0	0	8	62		87	0	0	13
enthusiastic	RP	5	58	0	0	9	67		87	0	0	13

salute – salutation (SS – US)

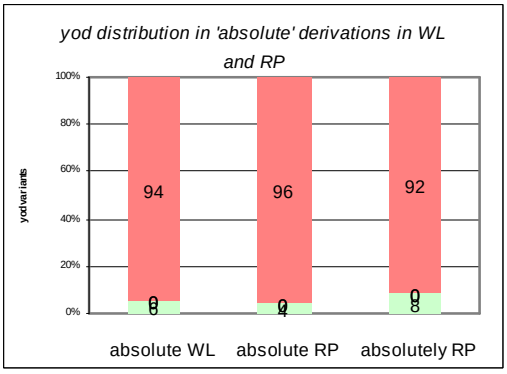
Dropping prevails in *salute* whereas retention is more frequent in *salutation* as expected due to the stress. There is slightly more dropping in *salutation* in reading passages than in the word list.



word	style	group	1	2	3	4	total	%	1	2	3	4
salute	WL	4	5	0	0	63	68		7	0	0	93
salutation	WL	8	58	0	0	4	62		94	0	0	6
salute	RP	4	4	0	0	63	67		6	0	0	94
salutation	RP	8	103	0	0	15	118		87	0	0	13

***absolute – absolutely* (US)**

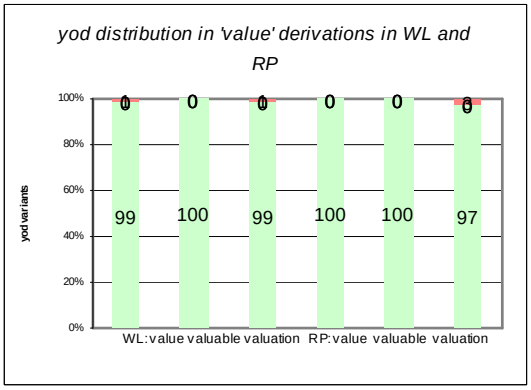
There is no difference in style or between the words themselves. Yod dropping is the main variant. This confirms the fact that yod in unstressed syllables separated by another syllable behaves as in stressed syllables.



word	style	group	1	2	3	4	total	%	1	2	3	4
absolute	WL	6	4	0	0	66	70		6	0	0	94
absolute	RP	6	3	0	0	66	69		4	0	0	96
absolutely	RP	6	5	0	0	54	59		8	0	0	92

***value – valuable – valuation* (US)**

All '*value*' words show the same behaviour in both styles.



word	style	group	1	2	3	4	total	%	1	2	3	4
value	WL	7	68	0	0	1	69		99	0	0	1
valuable	WL	7	67	0	0	0	67		100	0	0	0
valuation	WL	8	68	0	0	1	69		99	0	0	1
value	RP	7	69	0	0	0	69		100	0	0	0
valuable	RP	7	69	0	0	0	69		100	0	0	0
valuation	RP	8	67	0	0	2	69		97	0	0	3

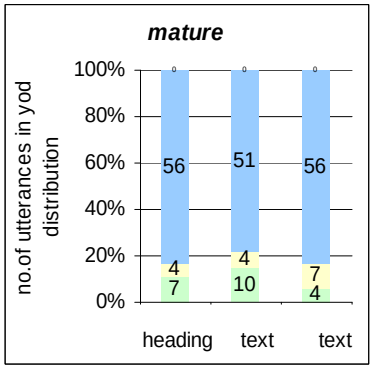
To summarise the comparison of words with the same morpheme: in most cases there is no major difference between either the styles or the words. Where there is a difference, it is caused by the syllable groups or styles of the words being compared, but no recognisable pattern emerges, e.g. with '*super*' words there is no significant difference between stressed- and unstressed-syllable words; *statue* and *statuette* are both words with /ju/ in an unstressed syllable but they display a different yod distribution; and '*new*' words with /ju/ in a stressed syllable show totally haphazard patterns.

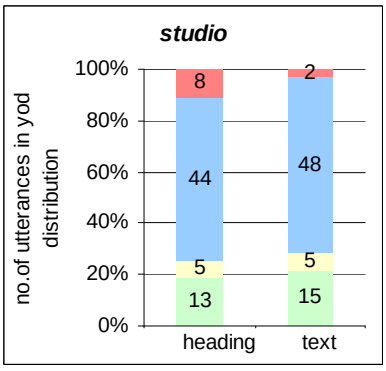
4.4.7 Words from headings vs. words from text

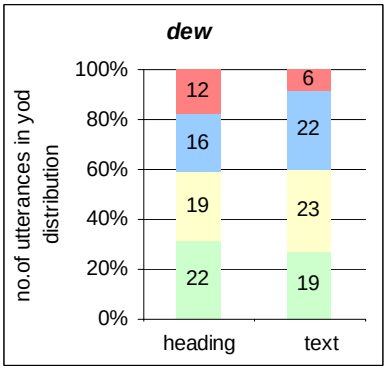
Some of the /ju/ words were deliberately used also in the heading to see if there is any difference in pronunciation of the same word in a heading and within a text passage. There are 10 such words: *mature, studio, dew, duodenal, substitute, issue, suit, Luke, Luton* and *salutation*. There is only up to 11% difference between pronunciation in the heading and the text passages. *Suit, Luke, Luton* and *salutation* can only be pronounced in two ways. *Luke* and *Luton* are pronounced the same way in the heading and the text because there is no variation in these words anyway. Four informants have yod dropping in *salutation* more often in the heading than retention, while eight informants on average have retention more frequently than dropping in the heading in *suit*. In both cases the more frequent yod realisation in the heading is the less common one in general in these words.

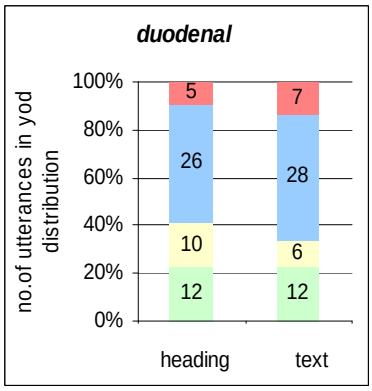
Three and six informants respectively have more dropping in *studio* and *dew* in the heading at the expense of coalescence; and again, in neither of the words is dropping the main yod realisation. There is a different situation with *mature* and *issue*, where more coalescence occurs in the heading with three and six informants respectively. However, in these words coalescence is the most common variant. The yod dropping variants (3&4) in *duodenal* and *substitute* occur more often in the text than in the heading in four and three cases respectively. Coalescence is the dominant yod realisation here.

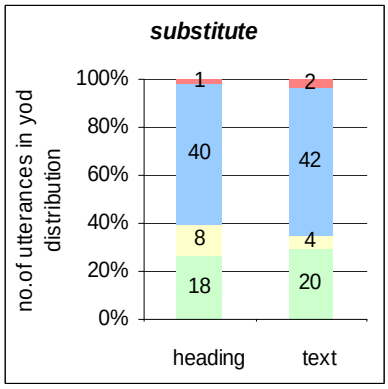
To summarise the situation we could say that there is no consistent development. The differences between the same word in the heading and reading passages are not more remarkable than the differences between several pronunciations of the same word.

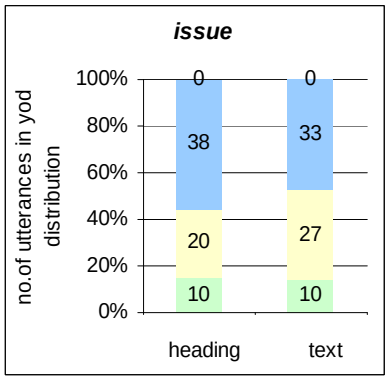


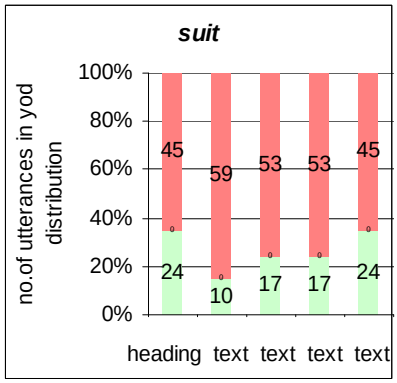


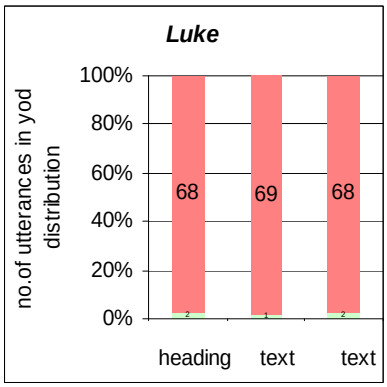


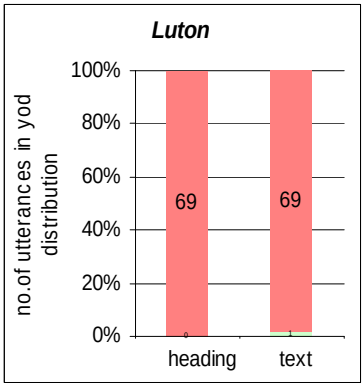


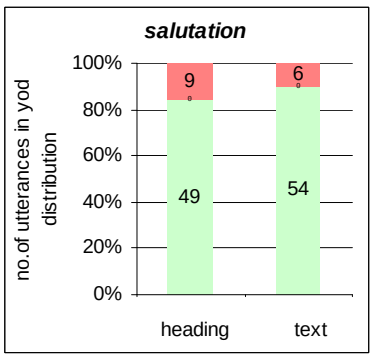












4.4.8 Following linguistic context

No attention was paid to an even distribution of the following context when preparing the matrix, therefore it is only a random sample. Nevertheless, the chi squared test showed independence between preceding and following context.

The distribution of yod variants in stressed syllables at the end of words and before voiced consonants is similar: retention and coalescence are the most frequent realisations. The most common yod variant before vowels is coalescence. Dropping is the dominant realisation before semi-vowels and devoiced consonants.

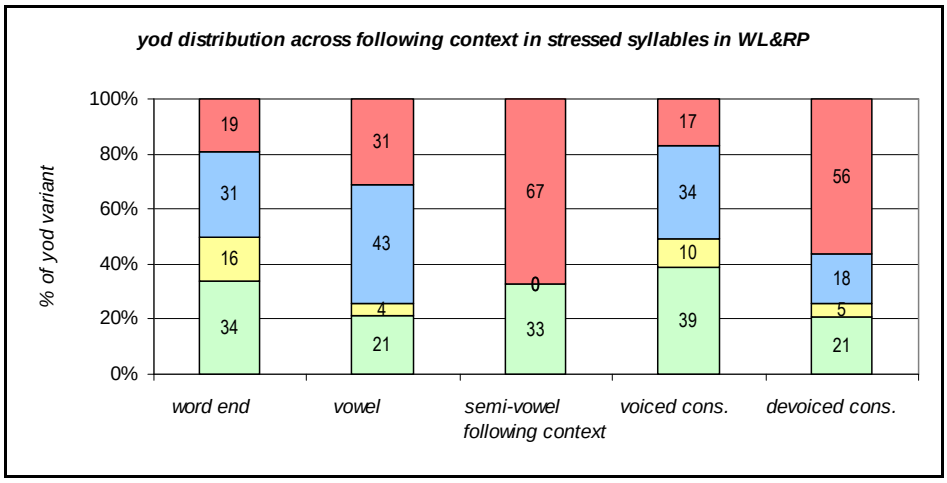


Fig. 4.33 Yod distribution across following context in stressed syllables in WL&RP

Tab. 4.9 Yod distribution across following context in stressed syllables in WL&RP

context	*no. of words with a particular variant*						**%**			
SS	***1***	***2***	***3***	***4***	***total***		***1***	***2***	***3***	***4***
word end	306	144	277	174	901		34	16	31	19
vowel	266	56	541	387	1250		21	4	43	31
semi-vowel	56	0	0	116	172		33	0	0	67
voiced consonant	1250	316	1090	534	3190		39	10	34	17
devoiced consonant	741	183	639	2013	3576		21	5	18	56
					9089					

Fig. 4.34 shows that there is the same pattern in unstressed syllables in all following contexts except before devoiced consonants: coalescence is the most frequent variant, followed by retention and coalescence with yod before vowels, voiced consonants and in word-final positions. Dropping is the least frequent variant except before devoiced consonants – there it competes with retention.

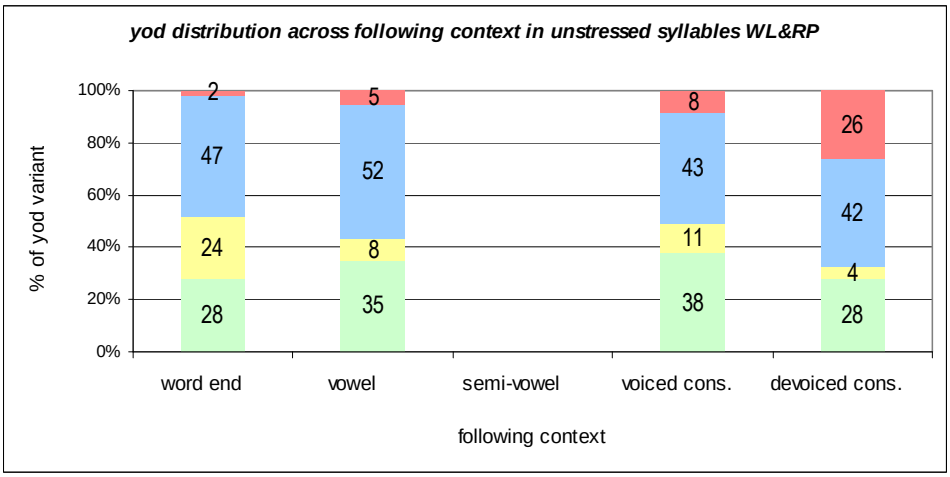


Fig. 4.34 Yod distribution across following context in unstressed syllables in WL&RP

Tab. 4.10 Yod distribution across following context in unstressed syllables in WL&RP

context	*no. of words with a particular variant*						**%**			
US	***1***	***2***	***3***	***4***	***total***		***1***	***2***	***3***	***4***
word end	171	147	290	12	620		28	24	47	2
vowel	902	216	1338	136	2592		35	8	52	5
semi-vowel	0	0	0	0	0		0	0	0	0
voiced consonant	546	162	620	122	1450		38	11	43	8
devoiced consonant	361	57	538	333	1289		28	4	42	26
					5951					

4.5 Yod variants across social factors

As described in detail above, five social factors have been taken into consideration in this study: age, sex, socio-economic class (SOCEC), social network (SOCNET), and the degree of mental urbanisation (MENURB). In the end also education and occupation (parts of SOCEC) were tested separately.

In the first stage of analysis, the method of correlation was used. Ideally the social factor values of all informants are correlated with the informants' pronunciation values. To be able to do so, an index had to be created that would combine the results of the informants' choices. That is the normal procedure in linguistic studies with variables which have two variants or where the variants are a continuum. This might be the case with yod in some instances but definitely not in all linguistic contexts, e.g. there is no coalescence of yod with /l/ and /θ/ at all; and no coalescence of yod with /s/ or /z/ in word-initial position. I believe that coalescence with yod (2) can be the transition stage between yod retention (1) and coalescence without yod (3). But it seems rather unlikely that coalescence (3) is a transition to yod dropping (4). The suggested yod shift could therefore take place in the following two directions:

1) yod retention (1) --> (coalescence with yod) (2) --> coalescence without yod (3)
2) yod retention (1) --> yod dropping (4)

On the other hand, variants (1) to (4) create a phonological continuum in that variants (1) and (2) contain audible yod, variant (3) according to Bauer's arguments contains yod in the form of a merger with the preceding consonant and variant (4) does not have yod at all.

Nevertheless, the index is the only way to compare a social factor with the variable in general and it does reflect pronunciation variability overall, which is why it is also presented here. It must, however, be viewed with reservations. The index for each informant is created by adding up the values of variants for all words, divided by the number of words and multiplied by 100. This produces an index ranging from 100 to 400, where 100 means 100% yod retention (1) and 400 is 100% dropping (4). The values in between have to be treated with care, because an index of 300 does not necessarily mean 100% coalescence (3) but may be a combination, for example, of some yod retention and a majority of dropping. Nevertheless, it works as a comparison between informants to some extent and a tendency towards yod presence or yod absence can certainly be seen.

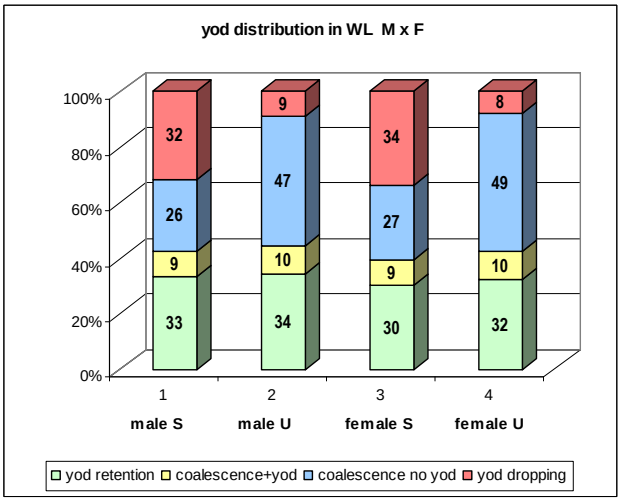
One index is created for each style and stress environment: WL SS, WL US, RP SS, RP US. An overall index is a mean of the four indices and is used to give an overview of the whole set of data. For the following observations, the overall index is used because the other four indices produce results with the same tendencies.

From the five social factors only age and mental urbanisation show a significant correlation with the yod index, namely a negative correlation even at 1% level of significance ($p = 0.01$; critical value for $n = 70$ is 0.306) $r(AGE) = -0.505$ and $r(MENURB) = -0.337$. This means that yod absence decreases with age – younger people use more coalescence or dropping than older people. Similarly, informants with a positive attitude to the city lifestyle drop yod or coalesce more often than informants with a positive attitude towards a rural lifestyle. It should be noted though that there is also a significant positive correlation between age and mental urbanisation ($r = 0.325$), which probably has some effect on the results.

Let us now look in detail at the individual factors across the yod variant choices.

4.5.1 Yod variants across sex

There is no significant correlation between the pronunciation of yod and sex, with the overall index r = 0.050. The figure shows hardly any difference between men and women. The greatest difference is 3% in WL ss, where men's score of retention is slightly higher.



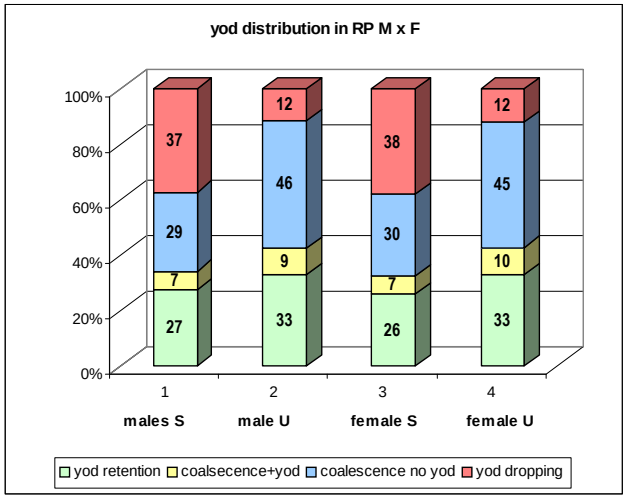


Fig. 4.35 Yod variants across sex

Tab. 4.11 Yod variants across sex

Yod distribution in WL across sex

WL	*yod variant*	**1**	**2**	**3**	**4**	**total**
s male	*n*	655	175	510	625	1965
	%	33	9	26	32	100
WL						
u male	*n*	498	147	674	129	1448
	%	34	10	47	9	100
WL						
s female	*n*	577	173	514	643	1907
	%	30	9	27	34	100
WL						
u female	*n*	462	144	704	113	1423
	%	32	10	49	8	100

Yod distribution in RP across sex

RP	*yod variant*	**1**	**2**	**3**	**4**	**total**
s male	*n*	717	181	750	976	2624
	%	27	7	29	37	100
RP						
u male	*n*	509	143	709	177	1538
	%	33	9	46	12	100
RP						
s female	*n*	670	170	773	980	2593
	%	26	7	30	38	100
RP						
u female	*n*	511	148	699	184	1542
	%	33	10	45	12	100

There is, however, a more interesting gender comparison within age groups (4.5.3) that follows after the age group analysis itself (4.5.2).

4.5.2 Yod variants across age

As mentioned above, there is a significant negative correlation (r = -0.505) between age and yod pronunciation. This is illustrated by the scattergram. A higher index indicates more yod dropping or coalescence and the dots show that this is the case for younger people. The dots of the scattergram move down. The lower the index, the more frequently yod retention occurs, which is the case with older informants.

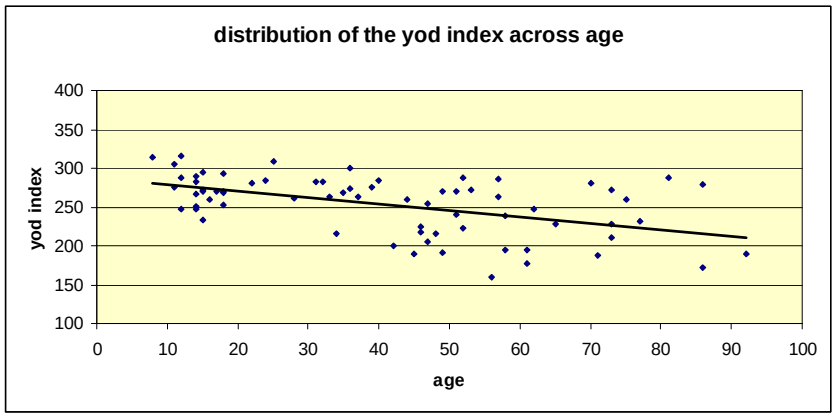


Fig. 4.36 Scattergram of yod index across age

Since we cannot tell from the scattergram based on the yod index which yod variants influence the value of the index, it is also useful to look at the individual yod variants scattered across age.

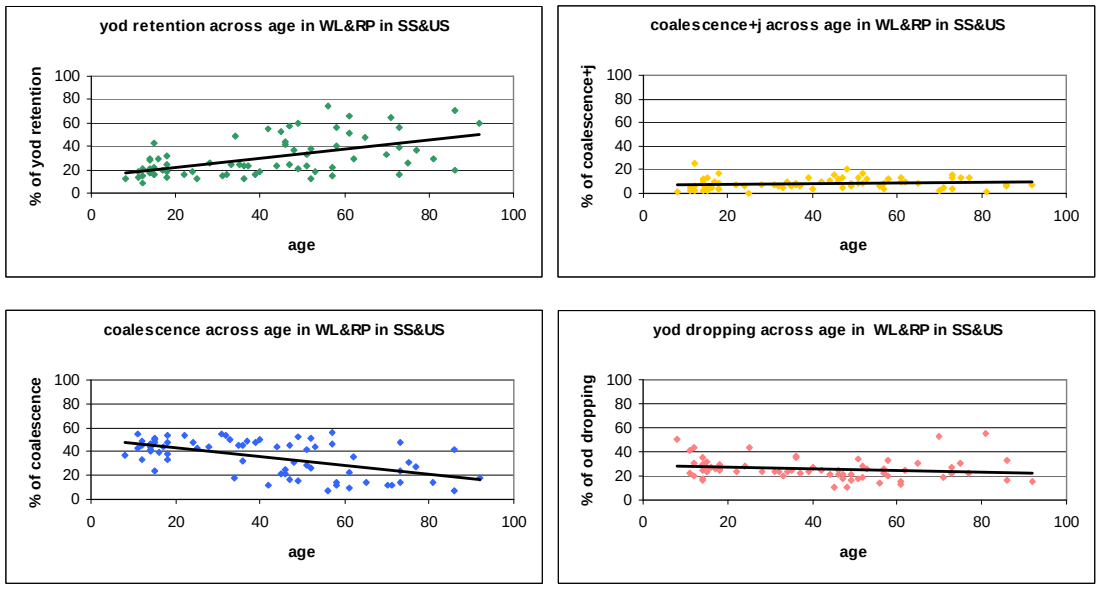
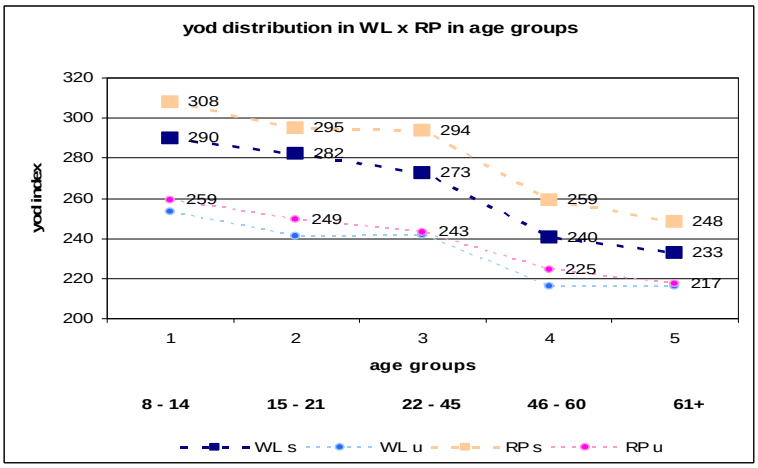


Fig. 4.37 The percentage of individual yod variants from all words scattered across age

Figure 4.37 shows that yod retention increases with age in contrast to coalescence, which decreases with age. Coalescence with yod remains almost constant across the age spectrum. Yod dropping shows a very slight decline with age.

When the informants are split into the five age groups described earlier, we arrive at the following figure, where style and stress are treated separately.



index	*WL*	*WL*	*RP*	*RP*
age	*s*	*u*	*s*	*u*
1	290	254	308	259
2	282	241	295	249
3	273	242	294	243
4	240	216	259	225
5	233	216	248	217

Fig. 4.38 Yod distribution in WLxRP in age groups

The figure shows what we already know from the correlation result and the scattergram. In addition, it presents style and stress, which so far have not been embedded in social context. It seems that all age groups clearly favour yod dropping in stressed syllables in reading passages more than in the word list. There are considerably less dropping variants in unstressed syllables in all age groups, but index scores of the styles are not so clearly apart, even though reading passages have a slightly higher index. We can only guess what proportion each yod variant represents in every age group. To be able to make valid statements about what happens with yod, whether the lower index score is really caused by less yod dropping or just by more coalescence instead of retention, we need to take a closer look at the yod distribution in both styles and stresses. Each of the four lines from the above figure will be represented by one diagram.

The following figures and tables show the distribution of yod variants across age groups in the two styles and two stress environments.

Yod distribution across age in stressed syllables

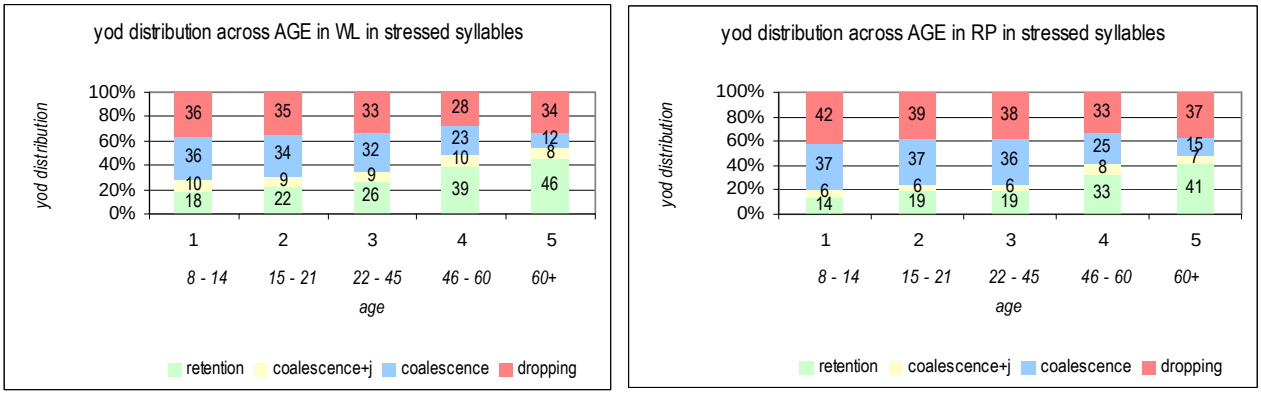


Fig. 4.39 Yod distribution across age in stressed syllables

Tab. 4.12 Yod distribution across age in stressed syllables

WL_s	age	1 (n=11)	2 (n=10)	3 (n=17)	4 (n=17)	5 (n=15)		WL_s	age	1 (n=11)	2 (n=10)	3 (n=17)	4 (n=17)	5 (n=15)
retention	1	108	117	250	374	383		%	1	18	22	26	39	46
coales+j	2	58	46	82	96	66			2	10	9	9	10	8
coalescence	3	214	182	312	216	100			3	36	34	32	23	12
dropping	4	215	184	320	272	277			4	36	35	33	28	34
	total	595	529	964	958	826	3872		total	100	100	100	100	100

RP_s	age	1 (n=11)	2 (n=10)	3 (n=17)	4 (n=17)	5 (n=15)		RP_s	age	1 (n=11)	2 (n=10)	3 (n=17)	4 (n=17)	5 (n=15)
retention	1	110	140	251	426	460		%	1	14	19	19	33	41
coales+j	2	49	41	74	108	79			2	6	6	6	8	7
coalescence	3	293	269	470	324	167			3	37	37	36	25	15
dropping	4	330	284	493	432	417			4	42	39	38	33	37
	total	782	734	1288	1290	1123	5217		total	100	100	100	100	100

In both reading passages and the word list in stressed syllables there is a clear pattern**:** **increasing retention and decreasing coalescence with age**. The major division where this happens is between age groups 3 and 4, i.e. age 22–45 and 46–60 respectively.

In the word list in age groups 1 to 3 yod dropping and coalescence prevail, whereas in groups 4 and 5 it is yod retention. In the reading passages, yod dropping is dominant in groups 1 to 3, closely followed by coalescence; in age group 4 dropping and retention are equally most frequent; and in age group 5 yod retention dominates, followed by yod dropping. As expected, there is more dropping and coalescence in reading passages than in the word list at the expense of the yod-present variants.

Yod distribution across age in unstressed syllables

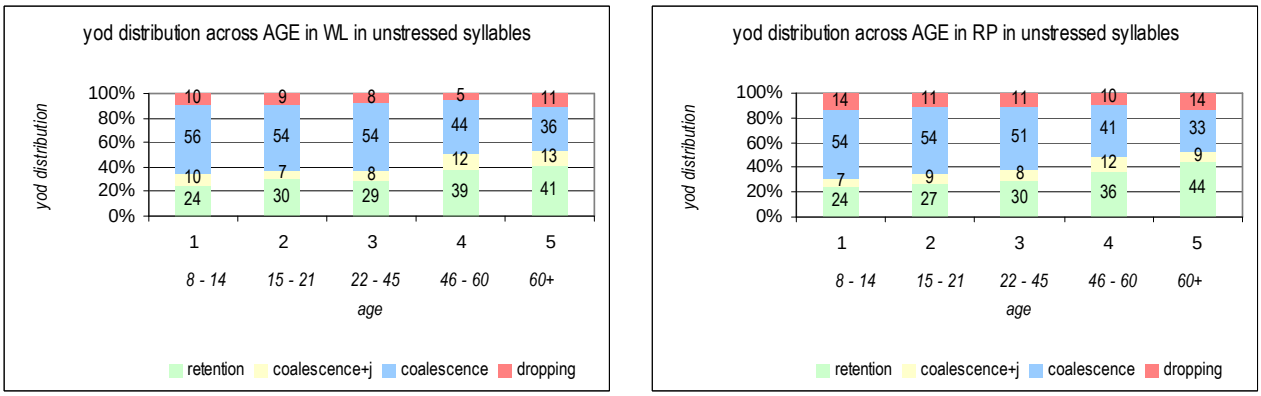


Fig. 4.40 Yod distribution across age in unstressed syllables

Tab. 4.13 Yod distribution across age in unstressed syllables

WL_u	age	1 (n=11)	2 (n=10)	3 (n=17)	4 (n=17)	5 (n=15)		WL_u	age	1 (n=11)	2 (n=10)	3 (n=17)	4 (n=17)	5 (n=15)
retention	1	99	120	209	280	252		%	1	24	30	29	39	41
coales+j	2	41	28	60	84	78			2	10	7	8	12	13
coalescence	3	236	214	388	319	221			3	56	54	54	44	36
dropping	4	44	34	61	38	65			4	10	9	8	5	11
	total	420	396	718	721	616	2871		total	100	100	100	100	100

RP_u	age	1 (n=11)	2 (n=10)	3 (n=17)	4 (n=17)	5 (n=15)		RP_u	age	1 (n=11)	2 (n=10)	3 (n=17)	4 (n=17)	5 (n=15)
retention	1	108	111	229	287	285		%	1	24	27	30	36	44
coales+j	2	32	36	65	97	61			2	7	9	8	12	9
coalescence	3	243	224	398	326	217			3	54	54	51	41	33
dropping	4	64	46	83	77	91			4	14	11	11	10	14
	total	447	417	775	787	654	3080		total	100	100	100	100	100

The patterns of yod distribution in unstressed syllables in the word list and reading passages are very similar. Coalescence decreases with age, while retention increases. Dropping and coalescence with yod remain the same, and each creates about 10% of the yod distribution. The most common variant in age groups 1 to 3 is clearly coalescence, for age group 4 it is still coalescence but only by 5% ahead of retention, and in age group 5 retention finally outstrips coalescence by 5% in the word list and 11% in reading passages.

To summarise the development of yod variants across age groups: there is a clear pattern in both styles in stressed and unstressed syllables. **Retention increases with age, coalescence with yod remains the same with a slight increase in age group 4, coalescence without yod decreases with age, and yod dropping is evenly distributed across the age groups with a slight drop in group 4 (perhaps a contrast to the increase in coalescence with yod)**. There

are similarities in the proportions of yod distribution with informants aged 8–45 (age groups 1 to 3). Then a dramatic change of pattern follows. Informants over 46 (age groups 4 and 5) show a similar pattern again.

These observations between age and yod distribution in two styles (WL and RP) and two stress environments (stressed syllables – s and unstressed syllables – u) can also be supported statistically. The marked values show significant correlations even at a 1% level of significance (p = 0.01; critical value for n = 70 is 0.306): a positive correlation of age with retention and a negative correlation with coalescence in all four contexts.

Tab. 4.14 Correlation between age and yod variants

	WL s	WL u	RP s	RP u
age - retention	**0.514**	**0.485**	**0.488**	**0.580**
age - coalescence+yod	-0.023	0.300	0.136	0.169
age - coalescence	**-0.544**	**-0.508**	**-0.542**	**-0.553**
age - dropping	-0.128	-0.068	-0.183	-0.004

4.5.3 Yod distribution across age and sex

So far we have seen no difference between the yod pronunciation of males and females and we have detected a certain pattern in age groups. Will we find out something new by looking at gender again in the age group division? It seems that there are some differences between males and females after all. There are a minimum of five informants per cell, so the results should be relatively reliable.

The summary figures, one for each yod variant, show the percentage of the yod variant separately in stressed and unstressed syllables but together for the word list and reading passages. The figures compare the use of a particular yod variant between men and women in five age groups.

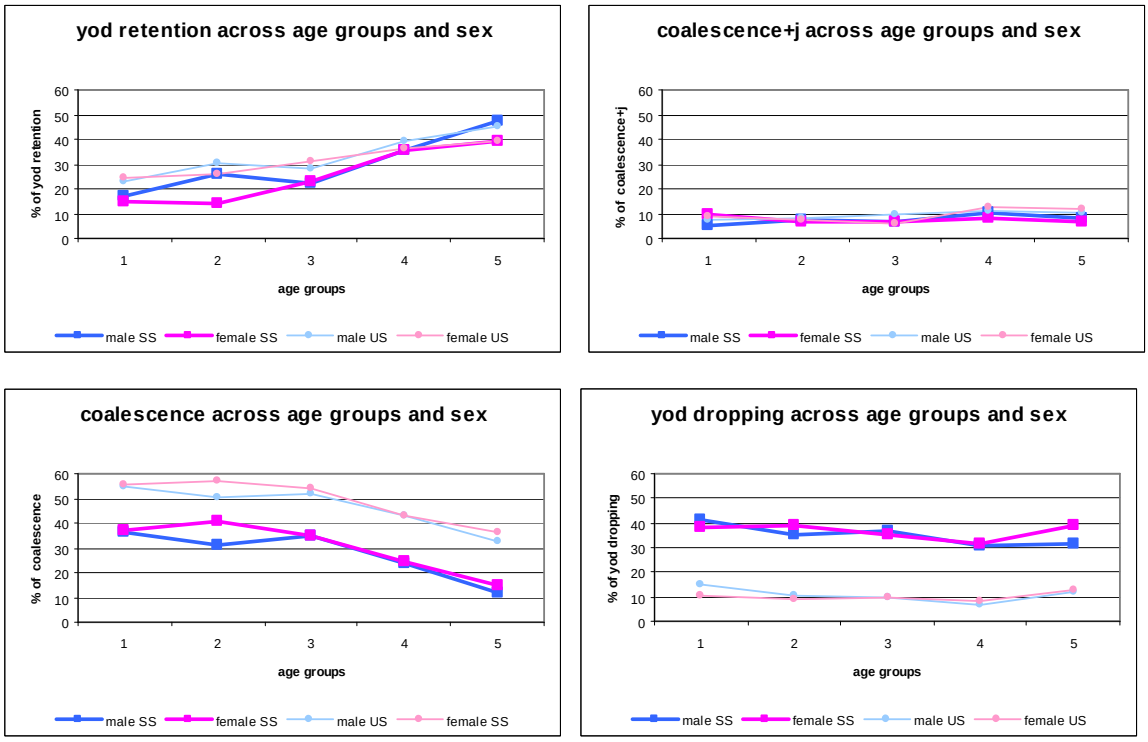


Fig. 4.41 Percentage of individual yod variants across age and sex in stressed and unstressed syllables

Tab. 4.15 Re-arranged data for summary graphs in figure 4.41. The total of 100 % is arrived at by adding up the percentages for each one of the four yod variants, e.g. 48% (retention) + 8% (coalescence+j) + 12% (coalescence) + 32% (dropping) = 100% for male speakers in age group 5 (over 61) in stressed syllables in WL&RP.

retention			*age*	1 (n=11)	2 (n=10)	3 (n=17)	4 (n=17)	5 (n=15)		1 (n=11)	2 (n=10)	3 (n=17)	4 (n=17)	5 (n=15)
male	*WL&RP*	*SS*	count	105	169	321	335	442	%	17	26	22	36	48
female	*WL&RP*	*SS*		113	88	180	465	401		15	14	23	35	39
male	*WL&RP*	*US*		85	129	275	246	272		23	31	28	39	45
female	*WL&RP*	*US*		122	102	163	321	265		25	26	31	37	39
coalescence+j														
male	*WL&RP*	*SS*	count	34	47	102	95	78	%	5	7	7	10	8
female	*WL&RP*	*SS*		73	40	54	109	67		10	7	7	8	7
male	*WL&RP*	*US*		29	34	95	72	60		8	8	10	11	10
female	*WL&RP*	*US*		44	30	30	109	79		9	8	6	12	12
coalescence														
male	*WL&RP*	*SS*	count	224	202	503	219	112	%	36	31	34	23	12
female	*WL&RP*	*SS*		283	249	279	321	155		37	40	35	24	15
male	*WL&RP*	*US*		204	213	502	269	195		55	51	52	43	33
female	*WL&RP*	*US*		275	225	284	376	243		56	57	54	43	36
dropping														
male	*WL&RP*	*SS*	count	257	230	532	287	295	%	41	35	36	31	32
female	*WL&RP*	*SS*		288	238	281	417	399		38	39	35	32	39
male	*WL&RP*	*US*		55	44	93	43	71		15	10	10	7	12
female	*WL&RP*	*US*		53	36	51	72	85		11	9	10	8	13

Male adolescents and retired males use more yod retention than females in the same age groups. By contrast, female adolescents use more coalescence than male adolescents and retired females use more dropping than retired males. The gender differences in the other age groups are more or less equal. If yod is the unmarked form, the hypothesis that females tend to use more standard forms than males is not confirmed. The innovative form, coalescence, is most dominant with speakers under 45 in general and adolescent females in particular.

The following figures show the distribution of yod variants across age and sex in the word list and reading passages separately.

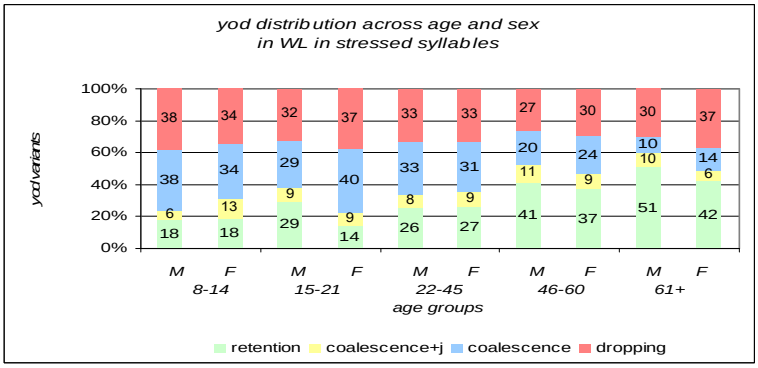


Fig. 4.42 Yod distribution across age and sex in stressed syllables in the word list

Tab. 4.16 Yod distribution across age and sex in stressed syllables in the word list

WL_s male	*age*	*1 n=5*	*2 n=5*	*3 n=11*	*4 n=7*	*5 n=7*		%	*age*	*1 n=5*	*2 n=5*	*3 n=11*	*4 n=7*	*5 n=7*
retention	*1*	48	81	160	166	200			*1*	18	29	26	41	51
coales+j	*2*	16	24	51	46	38			*2*	6	9	8	11	10
coalescence	*3*	103	81	206	82	38			*3*	38	29	33	20	10
dropping	*4*	103	89	208	107	118			*4*	38	32	33	27	30
	total	270	275	625	401	394	1965		*total*	100	100	100	100	100
WL_s female	*age*	*1 n=6*	*2 n=5*	*3 n=6*	*4 n=10*	*5 n=8*		%	*age*	*1 n=6*	*2 n=5*	*3 n=6*	*4 n=10*	*5 n=8*
retention	*1*	60	36	90	208	183			*1*	18	14	27	37	42
coales+j	*2*	42	22	31	50	28			*2*	13	9	9	9	6
coalescence	*3*	111	101	106	134	62			*3*	34	40	31	24	14
dropping	*4*	112	95	112	165	159			*4*	34	37	33	30	37
	total	325	254	339	557	432	1907		*total*	100	100	100	100	100

The age pattern of the yod variant distribution arrived at in chapter 4.5.2 (Fig. 4.39–40) is still valid. However, it is noteworthy that the degree of gender uniformity from chapter 4.5.1 (Fig. 4.35) has fallen. Age group 3 is still almost identical, and the differences between male and female speakers in age group 4 amount to only 4%. In age groups 1 and 5 it is up to 7% and 9% respectively. Girls aged 8–14 have 7% more coalescence with yod than boys of the same age and men over 61 use 9% more retention than their counterparts. The most noticeable difference is in age group 2: female adolescents use 11% more coalescence than male adolescents at the expense of yod retention. It cannot really be concluded that females tend to choose the more "correct" form, as is often the case with other variables, e.g. (th) and (r) (Wolfram 1969), or (in) (Horvath 1985 and Trudgill 1974). However, Labov (1972) hypothesises that women's speech is more standard in terms of stable and grammatical variables whereas men's speech is more standard in terms of variables that reflect linguistic change. The results described above seem to be more congruent with Labov's findings.

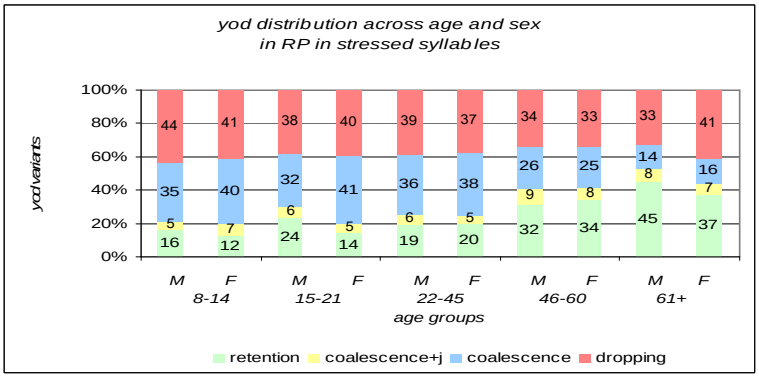


Fig. 4.43 Yod distribution across age and sex in stressed syllables in reading passages

Tab. 4.17 Yod distribution across age and sex in stressed syllables in reading passages

RP_s male	age	1 n=5	2 n=5	3 n=11	4 n=7	5 n=7		%	age	1 n=5	2 n=5	3 n=11	4 n=7	5 n=7
	1	57	88	161	169	242			1	16	24	19	32	45
	2	18	23	51	49	40			2	5	6	6	9	8
	3	121	121	297	137	74			3	35	32	36	26	14
	4	154	141	324	180	177			4	44	38	39	34	33
	total	350	373	833	535	533	2624		total	100	100	100	100	100
RP_s female	age	1 n=6	2 n=5	3 n=6	4 n=10	5 n=8		%	age	1 n=6	2 n=5	3 n=6	4 n=10	5 n=8
	1	53	52	90	257	218			1	12	14	20	34	37
	2	31	18	23	59	39			2	7	5	5	8	7
	3	172	148	173	187	93			3	40	41	38	25	16
	4	176	143	169	252	240			4	41	40	37	33	41
	total	432	361	455	755	590	2593		total	100	100	100	100	100

The differences between male and female informants in reading passages are smaller than in the word list. A difference of more than 5% can be seen only in age groups 2 and 5. Adolescent girls pronounce 10% more yod than the boys at the expense of coalescence. Women over 61 favour dropping by 8% over men at the expense of retention. Needless to say, both genders pronounce the same words with more dropping and coalescence in reading passages.

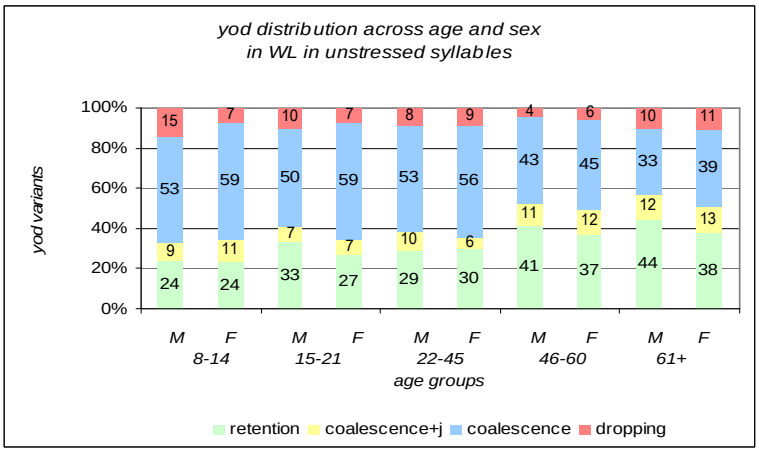


Fig. 4.44 Yod distribution across age and sex in unstressed syllables in the word list

Tab. 4.18 Yod distribution across age and sex in unstressed syllables in the word list

WL_u male	*age*	*1 n=5*	*2 n=5*	*3 n=11*	*4 n=7*	*5 n=7*		%	*age*	*1 n=5*	*2 n=5*	*3 n=11*	*4 n=7*	*5 n=7*
	1	44	68	134	124	128			*1*	24	33	29	41	44
	2	16	15	46	34	36			*2*	9	7	10	11	12
	3	99	101	249	130	95			*3*	53	50	53	43	33
	4	27	20	39	13	30			*4*	15	10	8	4	10
	total	186	204	468	301	289	1448		*total*	100	100	100	100	100
WL_u female	*age*	*1 n=6*	*2 n=5*	*3 n=6*	*4 n=10*	*5 n=8*		%	*age*	*1 n=6*	*2 n=5*	*3 n=6*	*4 n=10*	*5 n=8*
	1	55	52	75	156	124			*1*	24	27	30	37	38
	2	25	13	14	50	42			*2*	11	7	6	12	13
	3	137	113	139	189	126			*3*	59	59	56	45	39
	4	17	14	22	25	35			*4*	7	7	9	6	11
	total	234	192	250	420	327	1423		*total*	100	100	100	100	100

The differences between the sexes are not significant, but three groups exceed 5% again. Boys under 14 use 7% more dropping than girls at the expense of coalescence, adolescent girls use coalescence 9% more than their counterparts at the expense of retention and dropping, and men over 61 use retention 6% more than women at the expense of coalescence. Females in all age groups use more coalescence than males in the word list in unstressed syllables.

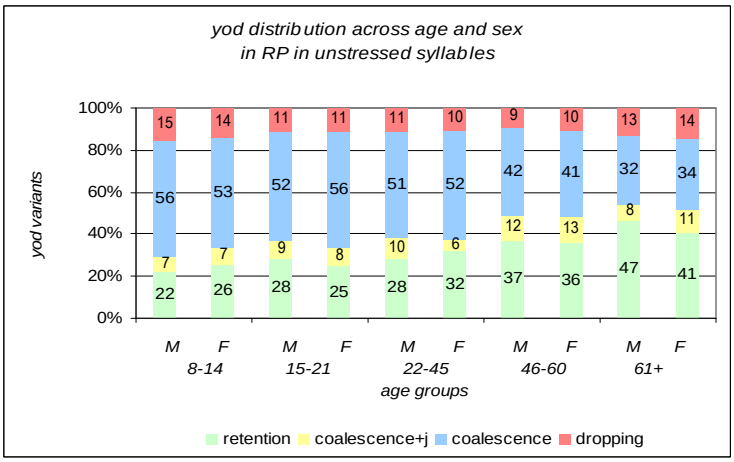


Fig. 4.45 Yod distribution across age and sex in unstressed syllables in reading passages

Tab. 4.19 Yod distribution across age and sex in unstressed syllables in reading passages

RP_u male	age	1 n=5	2 n=5	3 n=11	4 n=7	5 n=7		%	age	1 n=5	2 n=5	3 n=11	4 n=7	5 n=7
	1	41	61	141	122	144			1	22	28	28	37	47
	2	13	19	49	38	24			2	7	9	10	12	8
	3	105	112	253	139	100			3	56	52	51	42	32
	4	28	24	54	30	41			4	15	11	11	9	13
	total	187	216	497	329	309	1538		total	100	100	100	100	100
RP_u female	age	1 n=6	2 n=5	3 n=6	4 n=10	5 n=8		%	age	1 n=6	2 n=5	3 n=6	4 n=10	5 n=8
	1	67	50	88	165	141			1	26	25	32	36	41
	2	19	17	16	59	37			2	7	8	6	13	11
	3	138	112	145	187	117			3	53	56	52	41	34
	4	36	22	29	47	50			4	14	11	10	10	14
	total	260	201	278	458	345	1542		total	100	100	100	100	100

In reading passages in unstressed syllables there is only one gender difference that exceeds 5%, the rest is uniform. This shows that men over 61 use 6% more retention than women.

On the basis of the four figures above it can be said that

1) yod retention occurs least in stressed syllables in reading passages with girls under 14 and most in stressed syllables in the word list with men over 61
2) coalescence with yod occurs least in stressed syllables in reading passages with informants under 46 in general and most with females aged 46–60 in reading passages and females over 61 in the word list
3) coalescence without yod occurs least in stressed syllables in the word list with men over 61 and most in unstressed syllables in the word list with girls under 14
4) yod dropping occurs least in unstressed syllables in the word list with women aged 46–60 and most in stressed syllables in reading passages with boys under 14.

In conclusion, there are no big gender differences in yod pronunciation, but a closer analysis has uncovered some degree of variability. Unfortunately, no gender tendencies indicating a linguistic pattern have emerged. This can also be seen in the following summary figures. Here yod is represented by a mean index for each age group. The greatest gender differences in general are in the adolescent and over 61 groups. In both cases, female informants have a higher index than male informants, which means that females use more yod dropping or coalescence than males.

Figure 4.46 uses the yod index to summarise the results and development across age groups and sex in stressed and unstressed syllables for the word list and reading passages separately.

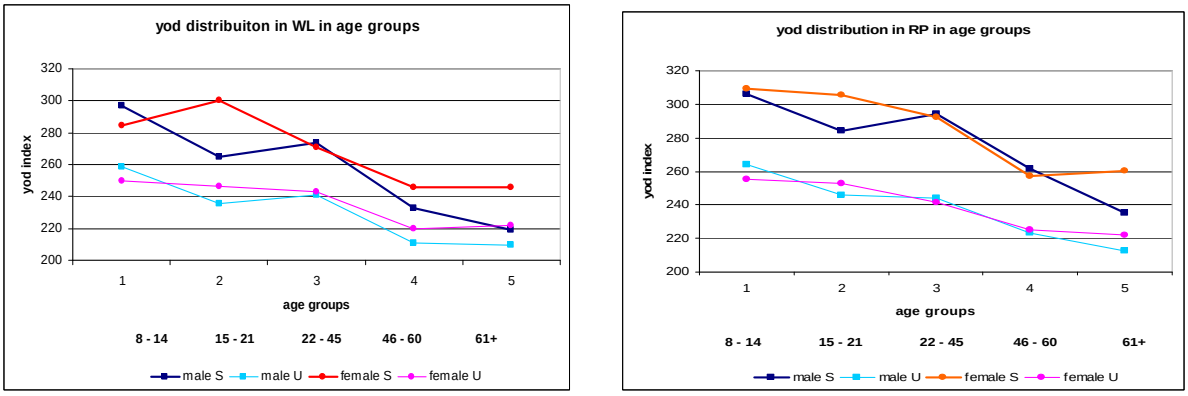


Fig. 4.46 Yod index across age and sex in WL, Yod index across age and sex in RP

Tab. 4.20 Yod index across age and sex in WL, Yod index across age and sex in RP

WL	*index mean*				*RP*	*index mean*			
age	*male S*	*male U*	*female S*	*female U*	*age*	*male S*	*male U*	*female S*	*female U*
1	297	259	285	250	*1*	306	264	309	255
2	265	236	300	246	*2*	284	246	306	253
3	274	241	271	243	*3*	294	244	293	241
4	232	211	246	220	*4*	261	223	257	225
5	219	209	246	222	*5*	235	212	260	222

The yod index in stressed syllables is always higher than in unstressed and it decreases with age in both stresses. Women tend to have a higher or the same yod index as men in the same age group, the most noticeable difference occurring among informants aged 16–21. The more frequent use of innovative forms by female informants is evidence of a change in progress, because according to Coates (2007:64) it is females, not males, who tend to use the more innovative forms where there is change in progress. Moreover, a typical pattern of distribution

in socio-linguistic variables not undergoing change is a U-curve (Llamas 2007:74). The yod index is higher in reading passages than in the word list.

4.5.4 Yod distribution across age and preceding context

Since age is a very significant factor in the choice of yod pronunciation, it is worth investigating yod distribution across age groups in individual preceding contexts. A graphic and statistical overview of yod distribution in each preceding context across age can be found in Appendix 4.1. The diagrams are deliberately presented in this way to make it easy to follow how the distribution of yod variants changes across age. The correlation results of individual speakers are not always reflected in the diagrams, in which speakers are grouped.

The following is a summary of the data:

- the change in the frequency of the yod variants after /t, st, d, n/ is most striking between age groups 3 (22–45) and 4 (46–60), and/or 4 (46–60) and 5 (over 61)
- there is a consistent preference for yod retention over coalescence after /st, d, n/ in stressed syllables with informants over 61
- /t/ is the only context with four yod variants where even the eldest informants have coalescence rather than retention as the most frequent variant in stressed syllables
- there is about 10% more retention after /st/ compared to /t/ in stressed syllables at the expense of coalescence and coalescence with yod in all age groups
- yod distribution after /n/ among informants under 45 is more balanced than after /t, st, d/ in that there is less coalescence and more retention or dropping
- the yod distribution patterns after /t, st, d, n/ in unstressed syllables are similar to those of stressed syllables
- yod dropping is the dominant variant after /s/ in stressed syllables: it slightly increases with age at first and from the age of 45 yod dropping falls considerably, so that informants over 61 use it equally with yod retention
- the most frequent yod variant after /z/ in stressed syllables is yod retention in all age groups; however, it gradually increases from 43% among children to 70% among retired informants at the expense of coalescence

- the decreasing tendency in yod dropping after /l/ across the age spectrum of 7% is the slowest change in time of all stressed-syllable contexts
- informants over 61 have over 20% more yod dropping after /θ/ in stressed syllables than the other age groups.

The detailed analysis of yod variants in the individual preceding contexts across age groups has revealed that the frequencies of occurrence of all the phonemes with some of the yod variants are to some extent age-dependent. Therefore if the apparent-time study can represent changes of a variable in time, it can be concluded that there has been a fast on-going change after /t, st, d, n/ in stressed and unstressed syllables, and a slower on-going change after /l, θ, s/ in stressed syllables.

It is interesting to note the sudden slow-down in the trend of rapidly increasing coalescence after /t, st, d, n/ over the last 45 years. The 98% level of dropping after /l/ in stressed syllables among the youngest generation suggests a change that is almost complete.

4.5.5 Yod distribution across mental urbanisation (MENURB)

Mental urbanisation is the other social factor with a significant, this time negative, correlation across yod index (r = -0.337) at the 1% level of significance. It means that informants with a high yod index tend to have a positive attitude to the urban lifestyle. In the attitudinal MENURB questionnaire, Braintree was compared with London, and it is possible that those with a low MENURB score, i.e. a positive attitude to the city, feel attracted by its possibilities and influenced by its culture in general, which might lead to conscious or subconscious copying of some pronunciation features. Yod dropping or coalescence are not at all a new phenomenon in the Estuary area.

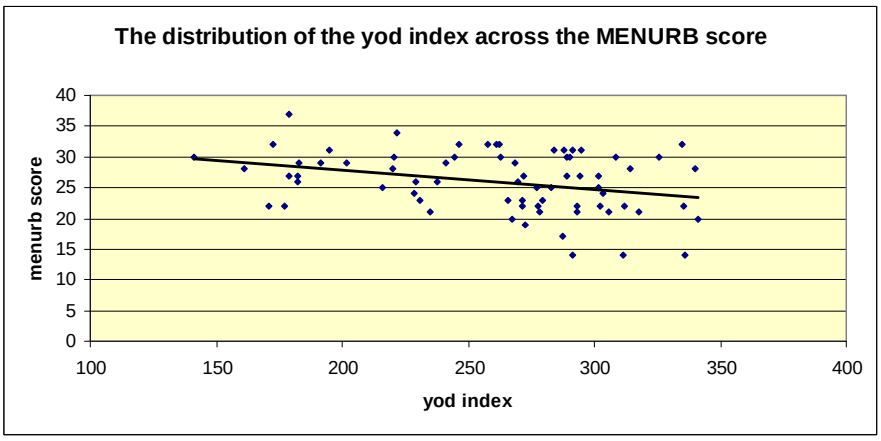


Fig. 4.47 The scattergram of yod index across mental urbanisation

The distribution of informants across the MENURB groups is very uneven. Nobody felt strongly negative about all aspects of the city lifestyle, and only seven informants felt negative to neutral about it. On the other hand, fifty informants felt neutral to positive, and thirteen strongly positive, about London and modern values. If we now look at the distribution of individual yod variants, the statistical results show a significant correlation between yod and mental urbanisation in ten instances: retention and coalescence in all four contexts, coalescence with yod in unstressed syllables in RP and yod dropping in stressed syllables in RP. Informants with a negative attitude to city lifestyle tend to retain more yod, while informants with a positive attitude to city lifestyle prefer coalescence in general and dropping in stressed syllables.

Tab. 4.21 Correlation between mental urbanisation and yod variants

Significance levels for a sample of 70 informants: **1% r=0.306**; **5% r=0.235**; **10% r=0.198**

	WL s	WL u	RP s	RP u
MENURB – retention	**0,325**	**0,260**	**0,340**	**0,272**
MENURB – coalescence+yod	0,083	0,122	0,104	**0,339**
MENURB – coalescence	**-0,311**	**-0,247**	**-0,291**	**-0,335**
MENURB – dropping	-0,187	-0,059	**-0,252**	-0,062

The following figures show the actual distribution of yod variants across MENURB groups.

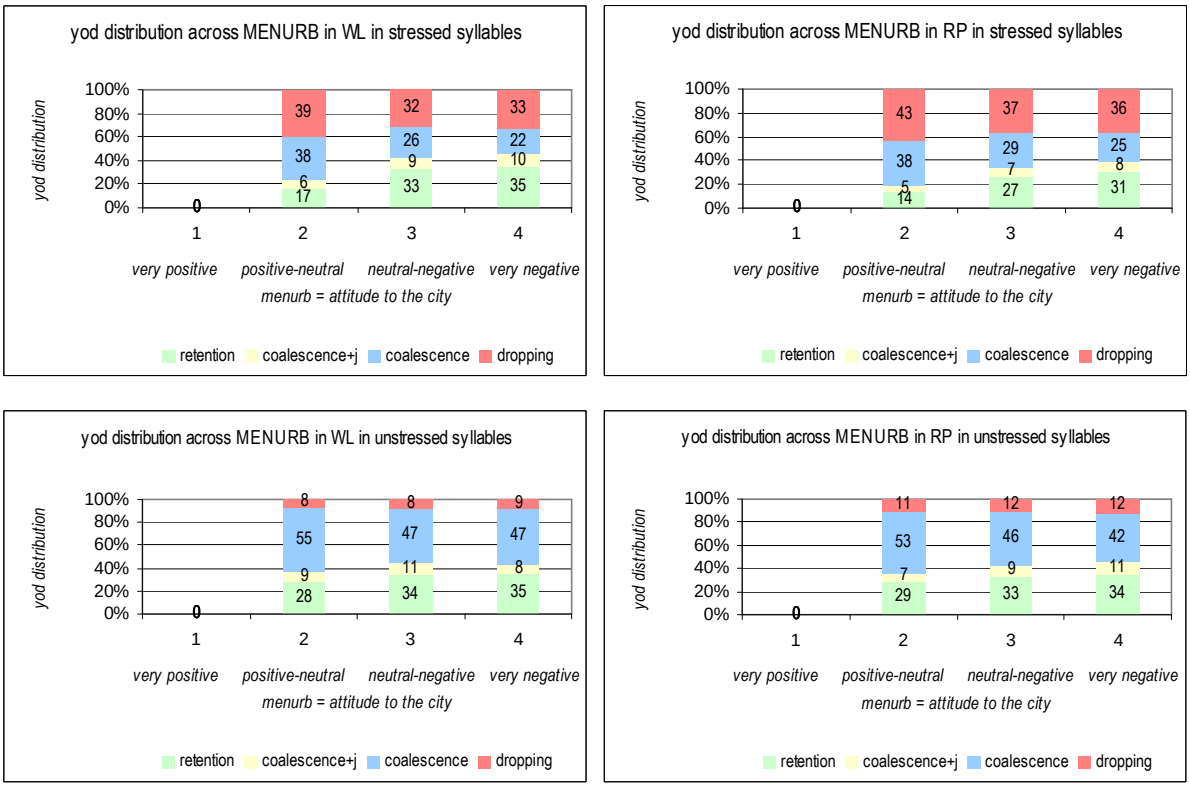


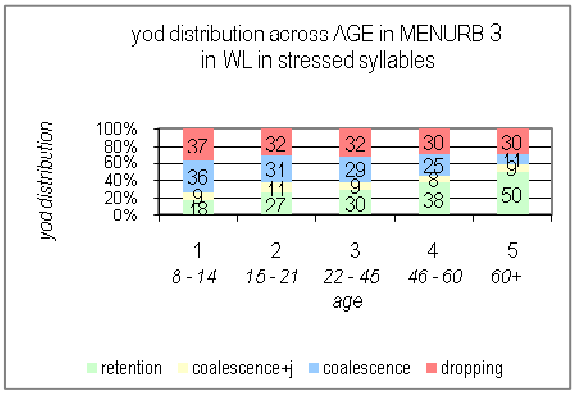
Fig. 4.48 Yod distribution across MENURB

Tab. 4.22 Yod distribution across MENURB

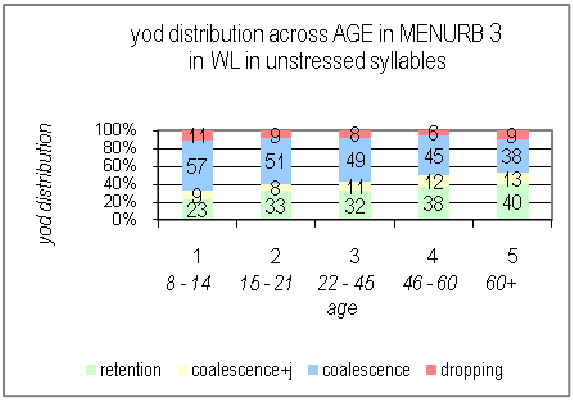
WL_SS	MENURB groups	1 n=0	2 n=7	3 n=50	4 n=13	RP_SS	MENURB groups	1 n=0	2 n=7	3 n=50	4 n=13
1 retention		0	62	913	257			0	71	1010	306
2 coalescence+j		0	21	250	77			0	24	250	77
3 coalescence		0	139	720	165			0	193	1077	253
4 dropping		0	144	882	242			0	218	1381	357
variants total		0	366	2765	741			0	506	3718	993
WL_US	MENURB groups	1 n=0	2 n=7	3 n=50	4 n=13	RP_US	MENURB groups	1 n=0	2 n=7	3 n=50	4 n=13
1 retention		0	77	686	197			0	81	731	208
2 coalescence+j		0	24	221	46			0	19	206	66
3 coalescence		0	150	964	264			0	149	1002	257
4 dropping		0	21	171	50			0	32	254	75
variants total		0	272	2042	557			0	281	2193	606

The differences in yod distribution between the MENURB groups are not huge. Groups 3 and 4 in particular are very similar, but interestingly this creates a pattern between informants with a positive attitude to the city (group 2) and those with a negative attitude to the city (groups 3 and 4). The former use considerably more yod dropping and coalescence at the expense of retention and coalescence with yod than the latter in general, but especially in the word list. However, it must be remembered that there is a significant positive correlation between age and mental urbanisation. There is no age group represented by all MENURB groups. Therefore it might be wise to look at least at yod distribution across age groups within one MENURB group. For this purpose the large MENURB group 3 with fifty informants is ideal. A brief look at the following tables and figures (Fig. 4.49) shows exactly the same proportions of yod variants as were described for the age groups (Fig. 4.39–40), i.e. yod retention increases with age while coalescence decreases with age.

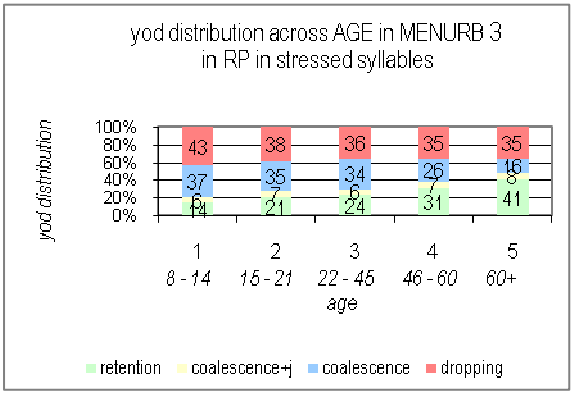
WL s	n	10	6	11	13	10							
age group		**1**	**2**	**3**	**4**	**5**		%	1	2	3	4	5
retention	*1*	96	88	185	275	269		1	18	27	30	38	50
coalescence+j	*2*	49	37	56	57	51		2	9	11	9	8	9
coalescence	*3*	194	101	183	181	61		3	36	31	29	25	11
dropping	*4*	198	104	202	218	160		4	37	32	32	30	30
	total	537	330	626	731	541	2765		100	100	100	100	100



WL u	n	10	6	11	13	10							
age group		**1**	**2**	**3**	**4**	**5**		%	1	2	3	4	5
retention	1	88	80	150	207	161		1	23	33	32	38	40
coalescence+j	2	35	19	49	66	52		2	9	8	11	12	13
coalescence	3	214	125	228	245	152		3	57	51	49	45	38
dropping	4	41	22	39	31	38		4	11	9	8	6	9
	total	378	246	466	549	403	2042		100	100	100	100	100



RP s	n	10	6	11	13	10							
age group		**1**	**2**	**3**	**4**	**5**		%	1	2	3	4	5
retention	1	102	93	202	309	304		1	14	21	24	31	41
coalescence+j	2	42	30	52	70	56		2	6	7	6	7	8
coalescence	3	262	155	282	260	118		3	37	35	34	26	16
dropping	4	301	170	302	346	262		4	43	38	36	35	35
	total	707	448	838	985	740	3718		100	100	100	100	100



RP u	n	10	6	11	13	10							
age group		**1**	**2**	**3**	**4**	**5**		%	1	2	3	4	5
retention	1	94	71	160	217	189		1	23	27	32	36	45
coalescence+j	2	30	25	49	69	33		2	7	10	10	12	8
coalescence	3	219	137	241	253	152		3	54	52	48	42	36
dropping	4	59	29	56	61	49		4	15	11	11	10	12
	total	402	262	506	600	423	2193		100	100	100	100	100

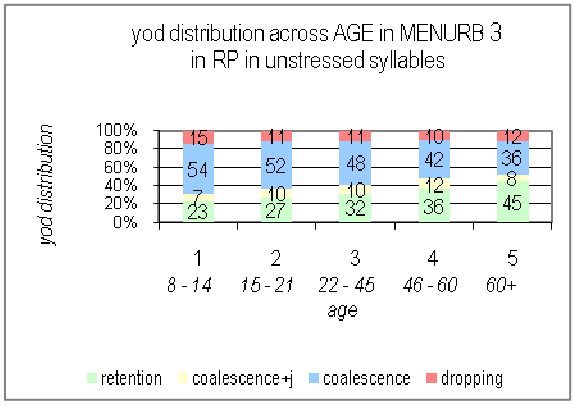


Fig. 4.49 Yod distribution across age in MENURB 3

4.5.6 Yod distribution across socio-economic class (SOCEC)

Although there is no significant correlation between the yod index and SOCEC in general, there are a few contexts where it can be found at different levels of significance:

Tab. 4.23 Correlation between socio-economic class and yod variants

Significance levels for a sample of 70 informants: **1% r=0.306**; **5% r=0.235**; **10% r=0.198**

	WL s	WL u	RP s	RP u
SOCEC – retention	-0,129	-0,034	-0,157	-0,100
SOCEC – coalescence+yod	**0,197**	0,028	0,170	0,009
SOCEC – coalescence	**0,212**	0,091	**0,317**	0,172
SOCEC – dropping	-0,193	-0,166	**-0,238**	**-0,217**

The results suggest that the higher the socio-economic class of an informant, the more coalescence and the less yod dropping he or she uses, especially in stressed syllables. Unfortunately, these significant correlations for coalescence and dropping are not clearly visible in the corresponding figures. This may be partly attributable to the fact that the SOCEC groups are not evenly represented. There are 8 informants in lower working class, 13 in upper working class, 32 in lower middle class, 15 in middle middle class and only 2 in upper middle class.

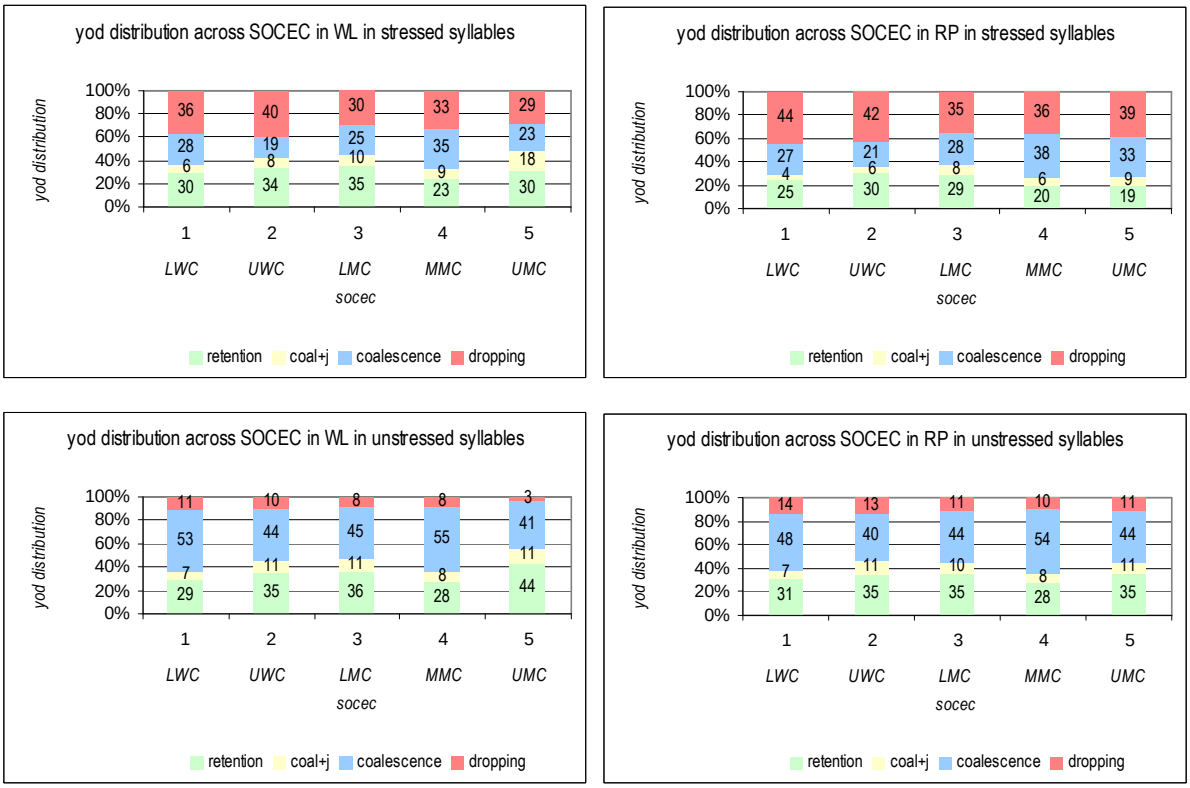


Fig. 4.50 Yod distribution across SOCEC

Tab. 4.24 Yod distribution across SOCEC

WL_SS	SOCEC groups	n=8 1	n=13 2	n=32 3	n=15 4	n=2 5	WL_SS	SOCEC groups	n=8 1	n=13 2	n=32 3	n=15 4	n=2 5
1 retention	counts	138	225	640	195	34		%	30	34	35	23	30
2 coalescence + j		29	50	176	73	20			6	8	10	9	18
3 coalescence		129	123	454	292	26			28	19	25	35	23
4 dropping		168	260	537	271	32			36	40	30	33	29
variants total		464	658	1807	831	112			100	100	100	100	100

WL_US	SOCEC groups	1	2	3	4	5	WL_US	SOCEC groups	1	2	3	4	5
1 retention	counts	98	171	479	174	38		%	29	35	36	28	44
2 coalescence + j		24	53	153	51	10			7	11	11	8	11
3 coalescence		176	218	607	341	36			53	44	45	55	41
4 dropping		35	49	105	50	3			11	10	8	8	3
variants total		333	491	1344	616	87			100	100	100	100	100

RP_SS	SOCEC groups	1	2	3	4	5	RP_SS	SOCEC groups	1	2	3	4	5
1 retention	counts	164	267	706	221	29			25	30	29	20	19
2 coalescence + j		24	58	186	69	14			4	6	8	6	9
3 coalescence		172	189	685	427	50			27	21	28	38	33
4 dropping		284	379	838	396	59			44	42	35	36	39
variants total		644	893	2415	1113	152			100	100	100	100	100

RP_US	SOCEC groups	1	2	3	4	5	RP_US	SOCEC groups	1	2	3	4	5
1 retention	counts	107	184	515	181	33		%	31	35	35	28	35
2 coalescence + j		24	60	142	55	10			7	11	10	8	11
3 coalescence		167	212	635	353	41			48	40	44	54	44
4 dropping		49	71	166	65	10			14	13	11	10	11
variants total		347	527	1458	654	94			100	100	100	100	100

We can observe that in stressed syllables LWC, UWC, LMC and UMC, speakers use yod dropping most often while MMC speakers use coalescence most often. In unstressed syllables coalescence is the most frequent variant in all socio-economic classes.

Figure 4.51 shows the distribution of each yod variant across socio-economic class separately.

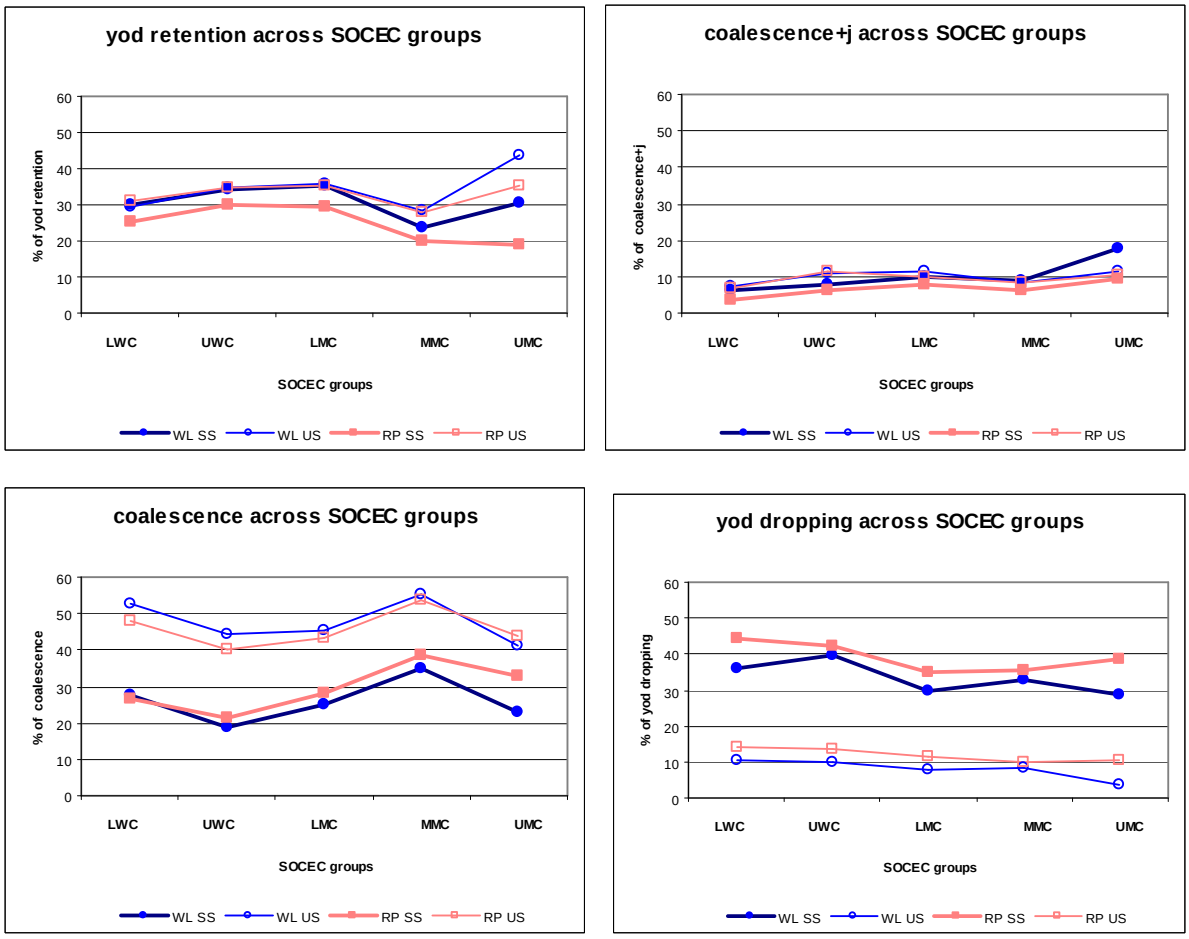


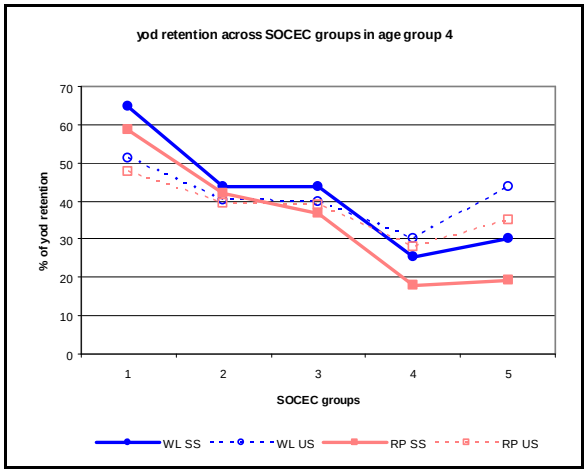
Fig. 4.51 Yod variants across SOCEC

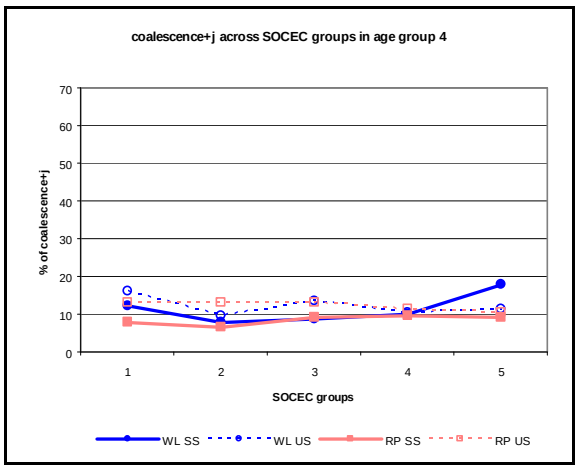
When one looks at the two styles, the biggest differences (9–11%) in the performance are demonstrated by the upper middle class. This could be explained either by their heightened awareness of the vernacular or by the small sample of two informants in UMC. If the UMC speakers are aware, perhaps subconsciously, of a certain social stigma with the yod variable, they will tend to use yod retention (or at least coalescence with yod) in the more careful style, here represented by the word list, and that is exactly the situation visible in Fig. 4.51: yod retention and coalescence with yod are used more in the word list while coalescence and dropping are used more in reading passages in stressed and unstressed syllables. The other socio-economic groups show the same phenomenon but not always consistently. The differences in the use of a particular yod variant by LWC, UWC, LMC, MMC between the two styles are rather small or zero. The exception is the 8% difference in yod dropping between the word list and reading passages in stressed syllables by the lower working class.

Based on figure 4.51 the conclusion is as follows:

1) yod retention occurs most frequently in the more careful style in unstressed syllables of the upper middle class and least frequently in the less careful style in stressed syllables of the upper middle class
2) coalescence with yod occurs most frequently in the more careful style in stressed syllables of the upper middle class and least frequently in the less careful style in stressed syllables of the lower working class
3) coalescence occurs most frequently in both styles in unstressed syllables of the lower working class and middle middle class and least frequently in both styles in stressed syllables of the upper working class
4) yod dropping occurs most frequently in the less careful style in stressed syllables of the lower working class and least frequently in the more careful style in unstressed syllables of the upper middle class.

Ideally, we would like to look at the impact of socio-economic class on the choice of yod variants also in connection with age, since we know that age is strongly correlated with the choice of yod variants. It means that we take one age group and look at each yod variant across the SOCEC groups. The only age group in the sample which has more than one speaker in each SOCEC group is age group number 4, informants aged 45–60. Figure 4.52 shows the four yod variants across SOCEC groups for informants aged 45–60.





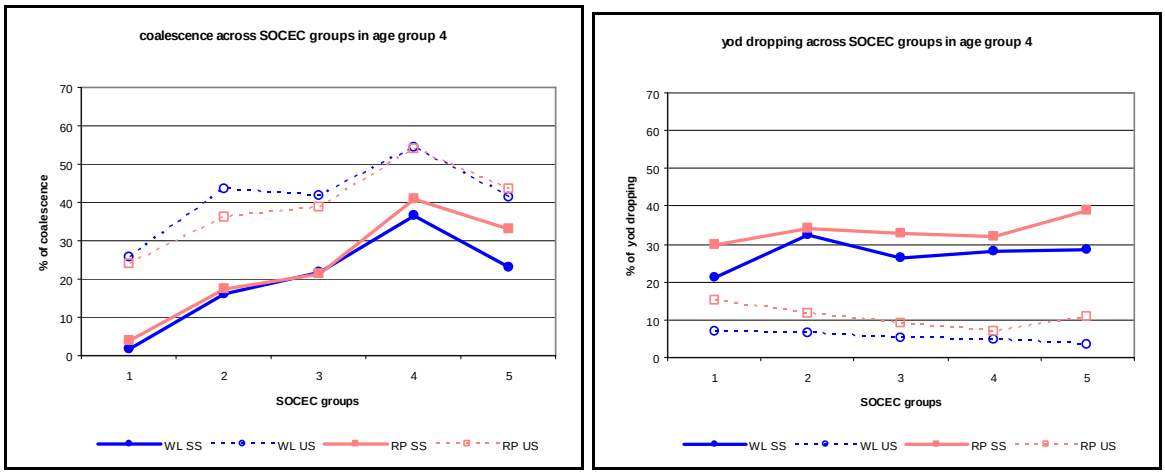


Fig. 4.52 Yod variants across SOCEC in age group 4

Tab. 4.25 Yod variants across SOCEC in age group 4

retention	SOCEC groups	n=1 1	n=5 2	n=5 3	n=4 4	n=2 5	SOCEC groups	n=1 1	n=5 2	n=5 3	n=4 4	n=2 5
WL_SS	counts	37	120	124	59	34	%	65	44	44	26	30
WL_US		22	83	86	51	38		51	40	40	30	44
RP_SS		45	157	140	55	29		58	42	37	18	19
RP_US		22	89	91	52	33		48	39	39	28	35
total		57	275	283	231	112						
coalescence+j	SOCEC groups	1	2	3	4	5	SOCEC groups	1	2	3	4	5
WL_SS	counts	7	22	24	23	20	%	12	8	8	10	18
WL_US		7	20	29	18	10		16	10	13	11	11
RP_SS		6	24	35	29	14		8	6	9	9	9
RP_US		6	29	31	21	10		13	13	13	11	11
total		43	206	216	169	87						
coalescence	SOCEC groups	1	2	3	4	5	SOCEC groups	1	2	3	4	5
WL_SS	counts	1	44	61	84	26		2	16	22	36	23
WL_US		11	90	90	92	36		26	44	42	54	41
RP_SS		3	64	82	125	50		4	17	21	41	33
RP_US		11	82	91	101	41		24	36	39	54	44
total		77	372	382	307	152						
dropping	SOCEC groups	1	2	3	4	5	SOCEC groups	1	2	3	4	5
WL_SS	counts	12	89	74	65	32	%	21	32	26	28	29
WL_US		3	13	11	8	3		7	6	5	5	3
RP_SS		23	127	125	98	59		30	34	33	32	39
RP_US		7	26	21	13	10		15	12	9	7	11
total		46	226	234	187	94						

The results are quite surprising. Yod retention considerably decreases as coalescence increases with the socio-economic class with informants aged 45–60, except for UMC speakers, who are somewhere between LMC and MMC. In other words, the lower the class the more retention its speakers use in both SS and US. Yod dropping is least common with LWC and most noticeable with UMC. Could it be that lower classes were trying to “speak up”? Yod retention is the norm for this generation and therefore they are possibly more aware

of the changes frequently discussed in the press and media and more anxious to avoid social stigmatisation.

We can also take the relationship between SOCEC and age from the opposite point of view and look at one SOCEC group across age groups. The biggest SOCEC group is number 3, lower middle class. Figure 4.53 shows the distribution of the four yod variants across age groups for informants from the lower middle socio-economic class.

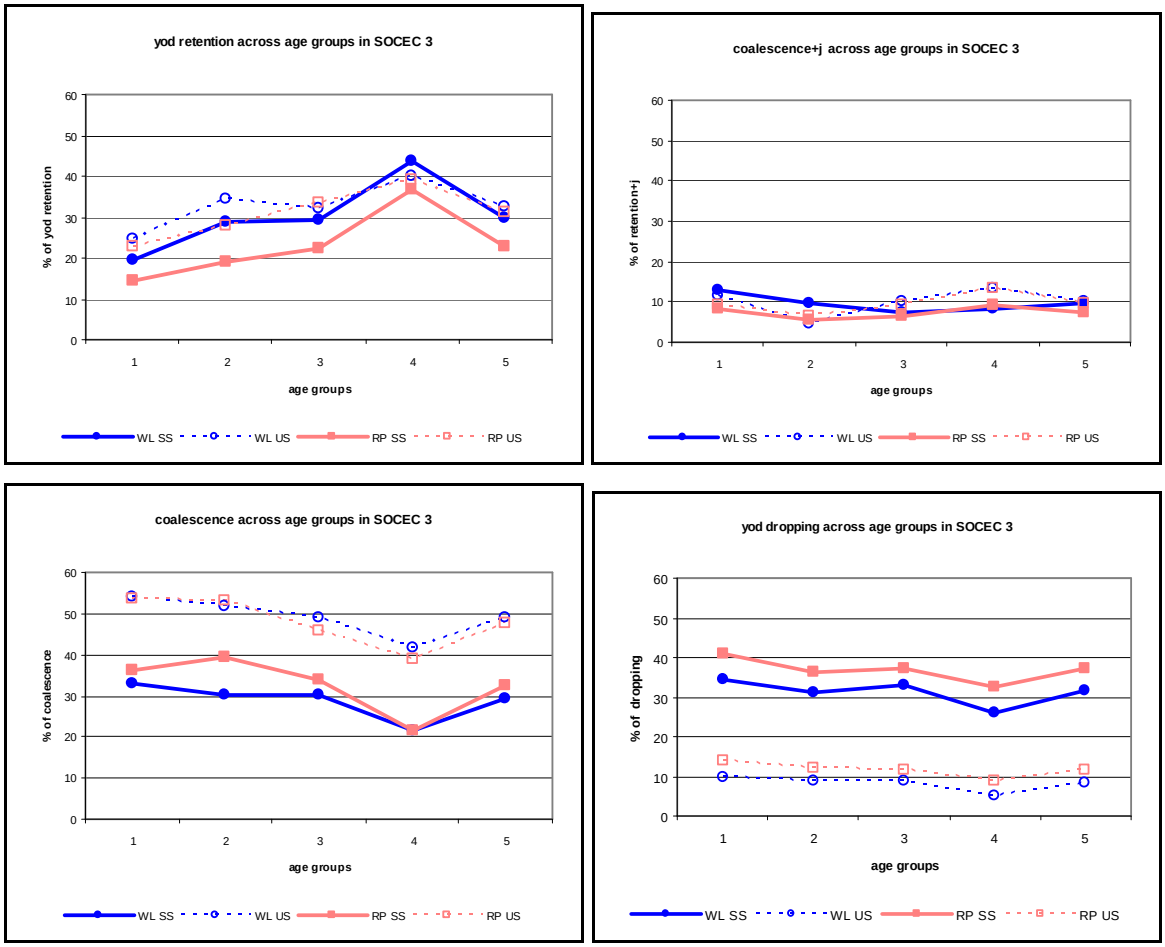


Fig. 4.53 Yod variants across age groups across SOCEC 3

Tab. 4.26 Yod variants across age groups across SOCEC 3

	age	n=6	n=4	n=8	n=5	n=9	age	n=6	n=4	n=8	n=5	n=9
retention	groups	1	2	3	4	5	groups	1	2	3	4	5
WL_SS	counts	65	65	134	124	388	%	19	29	29	44	30
WL_US		58	58	111	86	313		25	35	32	40	32
RP_SS		63	57	138	140	398		14	19	22	37	23
RP_US		59	50	126	91	326		23	28	33	39	31
total		335	227	460	283	1305						
	age						age					
coalescence+j	groups	1	2	3	4	5	groups	1	2	3	4	5
WL_SS	counts	43	22	35	24	124	%	13	10	8	8	10
WL_US		27	8	35	29	99		12	5	10	13	10
RP_SS		36	17	39	35	127		8	6	6	9	7
RP_US		24	12	35	31	102		9	7	9	13	10
total		234	168	346	216	964						
	age						age					
coalescence	groups	1	2	3	4	5	groups	1	2	3	4	5
WL_SS	counts	111	69	140	61	381		33	30	30	22	29
WL_US		126	87	169	90	472		54	52	49	42	49
RP_SS		158	119	209	82	568		36	39	34	21	33
RP_US		138	96	173	91	498		54	53	46	39	47
total		436	302	615	382	1735						
	age						age					
dropping	groups	1	2	3	4	5	groups	1	2	3	4	5
WL_SS	counts	116	71	151	74	412	%	35	31	33	26	32
WL_US		23	15	31	11	80		10	9	9	5	8
RP_SS		179	109	229	125	642		41	36	37	33	37
RP_US		36	22	44	21	123		14	12	12	9	12
total		257	180	378	234	1049						

The developments for each yod variant in figure 4.53 are very similar to figure 4.41 except for age group 5. Informants over 61 in the same class, LWC, break the trend of yod retention increasing with age and coalescence decreasing with age. Their choice of yod variants is similar to younger adults, informants aged 22–45, which contradicts the results of yod variants across age groups in general. It is precisely between younger adults and older adults where the big gap, the significant differences in the choice of yod variants occur, and the trend continues with retired informants. The reason why informants over 61 in LMC speak more like informants aged 22–45 in the same socio-economic class is not clear. Age groups 1 to 4, informants aged 8–60, in the same socio-economic class confirm the results from "yod distribution across age", i.e. yod retention increases with age while coalescence decreases with age, yod dropping shows a slight fall and coalescence a very slight increase.

Since education, which is part of the score of SOCEC in this study, is generally thought to have an influence on pronunciation, it was decided to test it separately in connection with yod pronunciation, too.

4.5.7 Yod distribution across education

There is very significant correlation between the yod index and education (r = -0.346): the higher the level of education, the fewer the dropping variants (3&4).

Tab. 4.27 correlation between education and yod variants

Significance levels for a sample of 70 informants: **1% r=0.306**; **5% r=0.235**; **10% r=0.198**

	WL s	WL u	RP s	RP u
education - retention	**0,230**	**0,242**	**0,206**	**0,291**
education - coalescence+yod	0,183	**0,261**	**0.322**	**0,237**
education - coalescence	-0,104	-0,152	-0,059	-0,175
education - dropping	**-0,371**	**-0,371**	**-0,436**	**-0,385**

Education seems to be connected mainly with retention, coalescence with yod and yod dropping. The higher the level of education, the higher the use of retention and coalescence with yod. The lower the level of education, the higher the use of yod dropping and coalescence. This development is not as clearly visible in the graphs as desired. The six levels of education distinguished in this study are again not evenly distributed. This is caused mainly by all young informants, who have naturally not had a chance to complete their studies. Fortunately it seemed logical to combine some of the six groups and create four fairly balanced categories in this way. No or other qualification with 22 informants (originally represented by 20 and 2 informants respectively), GCSE with 16 informants, A-levels and a higher qualification with 16 informants (originally represented by 5 and 11 informants respectively), and a degree with 16 informants. Both groupings are presented for illustration. The results of the calculations above are more identifiable in the reduced groups.

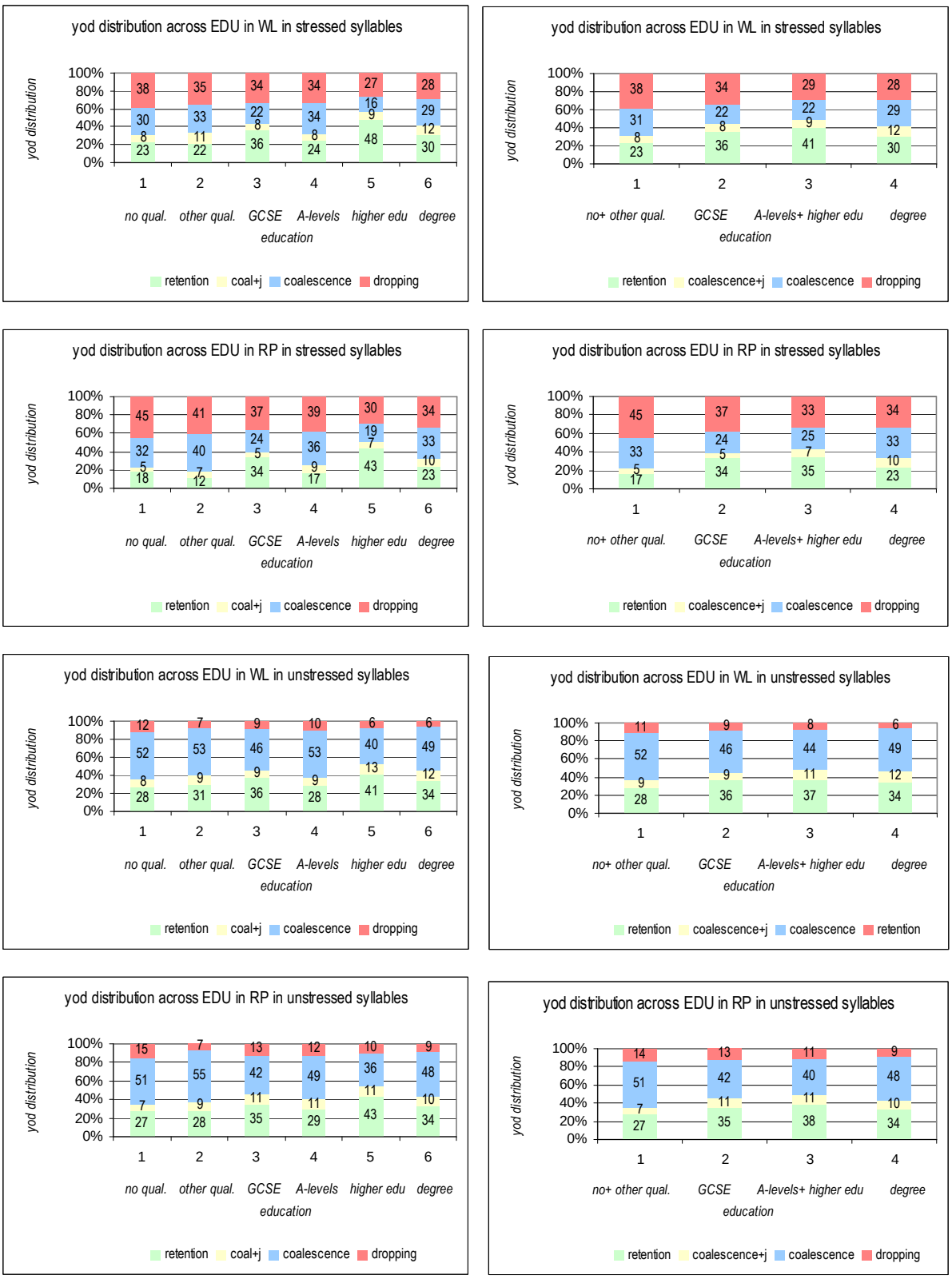


Fig. 4.54 Yod distribution across education (more and less detailed grouping)

Occupation, a part of SOCEC, was also tested separately for correlation. There is only a significant negative correlation at the 10% level (r = -0.226) for yod dropping in stressed syllables in reading passages.

4.5.8 Yod distribution across social networks (SOCNET)

There is only a significant positive correlation at the 10% level (r = 0.206) for yod dropping in unstressed syllables in reading passages. The distribution of informants in the artificially created four SOCNET groups is again uneven: there are only three informants who have the least contact with local people, 24 informants each in groups with less and more contact with the locals, and nineteen informants in the most locally sociable group. Even though there is not much variety among the SOCNET groups, the correlation table for yod variants and the figures will be included for completeness and later reference.

Tab. 4.28 Correlation between social networks and yod variants

Significance levels for a sample of 70 informants: **1% r=0.306**; **5% r=0.235**; **10% r=0.198**

	WL s	WL u	RP s	RP u
SOCNET – retention	0,079	0,126	0,107	0,007
SOCNET – coalescence+yod	0,163	-0,166	0,007	-0,087
SOCNET – coalescence	-0,154	-0,098	-0,093	-0,059
SOCNET – dropping	-0,031	0,131	-0,065	**0,206**

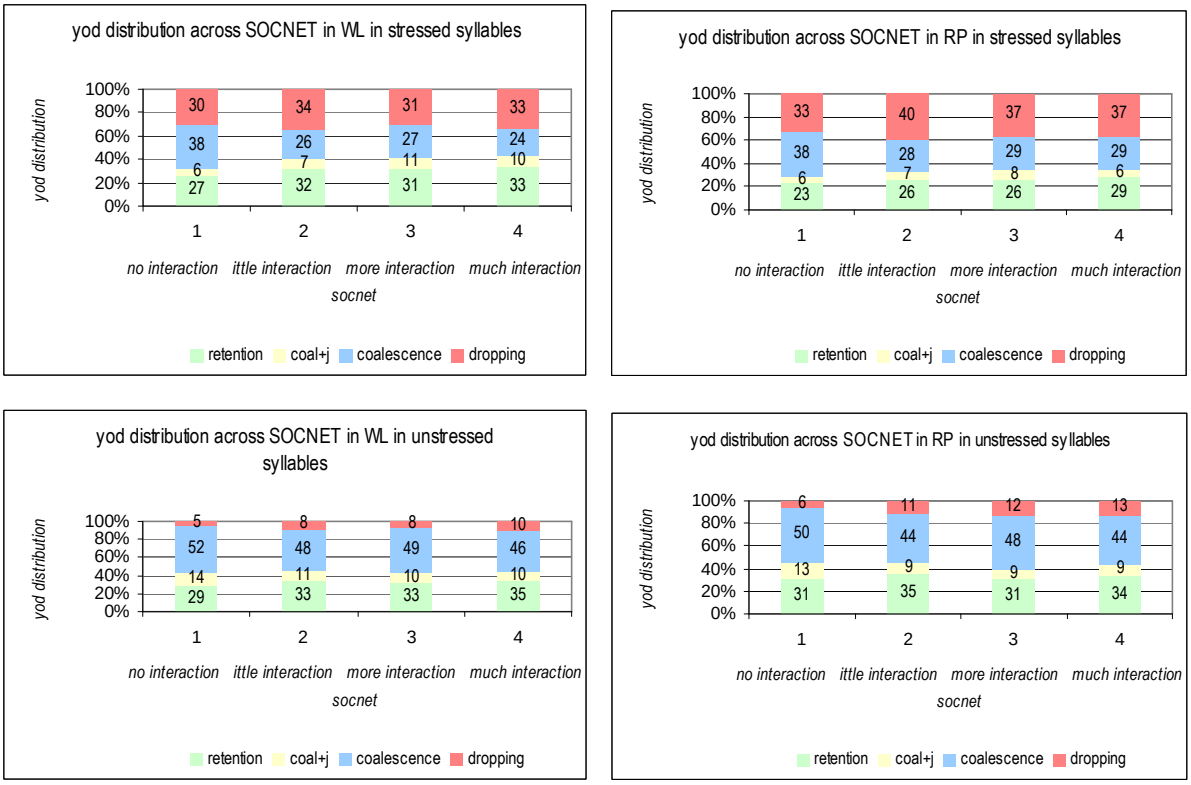


Fig. 4.55 Correlation between social networks and yod variants

Sometimes there is a discrepancy between the diagrams and the correlation results. The reason for this is probably that the correlation is calculated from individual values (a yod index or the amount of a yod variant and extralinguistic factors) for every informant, whereas the diagrams consist of group means.

4.5.9 Statistical testing of social factors across yod variants

Situations where correlation results are not detectable in the diagrams raise the question of what other method could be used to doublecheck the results. Given the naturally ordered character of the social factors, multiple linear regression could be used to determine which factors have a significant bearing on the choice of the variable, taking into consideration all the factors at the same time. The multiple regression methodology is superior to the use of bilateral correlations. There is a realistic possibility that some factors show significant correlation when in fact part of it is accounted for by another co-factor. Multiple linear regression can examine the relationship between a dependent variable "y" which we want to explain and several factors "x", called regressors that we think might account for the variation in "y". Let us take for example the yod index in stressed syllables in the word list as a dependent variable "y" and all the social factors as regressors "x". In fact, take education and occupation separately, apart from SOCEC, MENURB, SOCNET, age and sex, because it does not really matter how many factors are involved in the process. For the regression to be legitimate, the regressors have to be more or less ordered, ideally cardinal, e.g. in the values for education one is assuming that 4 is bigger than 3 which is bigger than 2 and that the distance between 4 and 3 is somehow comparable to the distance between 3 and 2, etc. It is possible to calculate the regression in Excel by using the function LINREGRESE and feeding it the variable "y" and regressors "x" of all informants. From that calculation we obtain (together with other numbers) the coefficient of determination *R squared* (line 3), which lies between 0 and 1 and represents the proportion of the variation in the dependent variable that has been accounted for by all the explanatory variables together. From that result we can calculate t-distribution *t,* which is the beta coefficient (line 1) divided by its standard error (line 2). Then finally the p-values for all regressors can be calculated with the function TDIST: it will ask for 1) the t value, 2) the number of degrees of freedom – equal to the number of observations in the sample minus the number of regressors minus 1, and 3) 2 for a 2-tailed test. The p-value answers the question: how likely is it that the relationship that this regression has revealed between a particular regressor "x1" and the dependent variable "y" is genuine? The p-value comes out as a fraction and is often referred to as a percentage. The

common cut-off line is 5% or 10%, although it is completely arbitrary. A p-value below 10% means that the relationship between the factor and the variable is significant. The beta value (line 1) tells us how large the effect of the factor is on the variable. To go back to our example, the result looks like this:

WL s index							
regressors	MENURB	SOCNET	education	occupation	SOCEC	sex	age
beta	-2.652	-8.163	-7.110	2.147	2.103	14.588	-0.578
error	1.178	3.251	4.163	10.533	4.183	11.368	0.377
R squared	0.331	43.149					
	4.389	62.000					
	57204.082	115433.401					
t	-2.251	-2.511	-1.708	0.204	0.503	1.283	-1.535
p value	**0.028**	**0.015**	**0.093**	0.839	0.617	0.204	0.130

The p-value tells us that mental urbanisation and social networks are significant for the choice of yod variants, maybe also education and possibly age. For instance, the p-value of 0.015 for social networks means that a statistical association this strong between the yod index (y) and social networks (x2) would only have arisen by chance 1.5% of the time. The beta value (line 1) means that 1 unit on the social network scale (0–8) lowers the yod index (100–400) by 8.163. However, the analysis does not end here. By applying the methodology "general to specific" associated with the econometrician David Hendry (2005; Cook and Hendry, 1994), which is supposed to be better than the "adding variables" method, we can subtract the unimportant factors until all are significant. In the next step we can therefore exclude occupation, SOCEC and sex and leave age (though it crossed the 10% cut-off line) just to see what happens:

regressors	MENURB	SOCNET	education	age
beta	-2.382	-6.652	-3.988	-0.731
error	1.143	3.040	3.175	0.269
R squared	0.298	43.179		
	6.899	65.000		
	51449.332	121188.151		
t	-2.084	-2.188	-1.256	-2.712
p value	**0.041**	**0.032**	0.214	**0.009**

p < 5%

Now, education is not important any more and age has become the most significant factor. In the first calculation other factors must have been correlated with age to some extent and could stand in for age in explaining the variable "y", so age was less necessary and the null hypothesis that age is irrelevant to "y" could have been accepted. After the reduction of the insignificant factors, age is the most important in explaining the yod index in stressed

syllables in the word list compared with the remaining factors in the equation. The calculation also tells us that under these circumstances for example a rise in one year of age reduces the dependent variable "y" by 0,73. We can go one step further and eliminate education:

regressors	MENURB	SOCNET	age
beta	-2.455	-5.783	-0.882
error	1.147	2.974	0.242
R squared	0.281	43.367	
	8.598	66.000	
	48509.051	124128.432	
t	-2.141	-1.945	-3.643
p value	**0.036**	**0.056**	**0.001**

p < 5%; p < 10%

Age is still the most significant factor in the choice of yod variable followed by mental urbanisation and social networks.

The same calculations have been done for the yod index as well as for the individual yod variants always in stressed and unstressed syllables and in the word list and reading passages. Supposing that yod variants lie in a phonetic continuum, it is enough to look at the regression using the yod index. Here is a comparison of the results of yod index across the four contexts in the first regression:

	regressors	MENURB	SOCNET	education	occupation	SOCEC	sex	age
WL s index	*p-value*	**0.028**	**0.015**	**0.093**	0.839	0.617	0.204	0.130
	beta	-2.652	-8.163	-7.110	2.147	2.103	14.588	-0.578
RP s index	*p-value*	**0.010**	**0.007**	**0.054**	0.984	0.410	0.296	0.179
	beta	-3.046	-8.895	-8.002	-0.209	3.389	11.714	-0.500
WL u index	*p-value*	0.235	**0.100**	0.218	0.658	0.900	0.525	**0.021**
	beta	-0.829	-3.194	-3.043	2.753	-0.309	4.266	-0.524
RP u index	*p-value*	0.151	0.347	0.155	0.666	0.977	0.790	**0.024**
	beta	-0.962	-1.730	-3.364	2.560	0.068	1.704	-0.488

p < 5%; p < 10%; p > 10% but still considered for "general to specific" method

When all the factors are taken into account the same pattern emerges within stressed syllables. Mental urbanisation and social networks are most significant, followed by education. Age does not reach the 10% cut off line. However, we know from the correlation results that there is a significant correlation between age and yod and therefore it will be considered for the factor-narrowing step. There is a similar pattern within unstressed syllables. Age emerges as the most significant factor, followed by social networks only in the word list.

In the next step of the "general to specific" methodology, mental urbanisation, social networks, education and age will be compared and only factors with significant p-values considered for the final narrowing.

	regressors	MENURB	SOCNET	education	age
WL s index	*p-value*	0.041	0.032	0.214	0.009
	p-value *beta*	**0.036** **-2.455**	**0.056** **-5.783**	-	**0.001** **-0.882**
RP s index	*p-value*	0.019	0.021	0.211	0.006
	p-value *beta*	**0.016** **-2.775**	**0.037** **-6.202**	-	**0.000** **-0.896**
WL u index	*p-value*	0.226	0.099	0.167	0.002
	p-value *beta*	-	0.251	-	**0.000** **-0.661**
RP u index	*p-value*	0.150	0.436	0.186	0.001
	p-value *beta*	0.182	-	0.237	**0.001** **-0.597**

p < 5%; p < 10%; p > 10%

From this equation of yod and four factors it can be concluded that **mental urbanisation, social networks and age have a significant influence on the choice of yod in stressed syllables**. One unit on the mental urbanisation scale (0–40) reduces the yod index (100–400) of stressed syllables by 2.5 and 2.8 in the word list and reading passages respectively. One unit on the social networks scale (0–8) reduces the yod index (100–400) of stressed syllables by 5.8 and 6.2 in the word list and reading passages respectively. One year of age (8–92) reduces the yod index (100–400) of stressed syllables by 0.9 in both the word list and reading passages. This means that yod dropping variants in stressed syllables decrease with increasing age, positive attitude to the rural way of life and stronger social interaction with local people. **In unstressed syllables the significant factor is only age.** One year of age (8–92) reduces the yod index (100–400) of stressed syllables by about 0.6, which also suggests decreasing occurrence of yod dropping variants with higher age, even though slightly less than in stressed syllables.

If, however, we do not see the yod variants as a phonetic continuum, each variant needs to be treated separately.

Retention

p < 5%; **p < 10%**; p > 10%

variant	context	regressors	MENURB	SOCNET	education	occupation	SOCEC	sex	age
retention	*WL s*	*p-value*	0.031	0.028	0.376	0.999	0.445	0.126	0.029
		beta	1.041	2.943	1.489	-0.007	-1.290	-7.081	0.338
		p-value	0.049	0.059	-	-	-	0.261	0.000
		p-value	**0.054**	**0.067**	-	-	-	-	**0.000**
		beta	0.899	2.213	-	-	-	-	0.426
	RP s	*p-value*	0.014	0.011	0.286	0.977	0.348	0.209	0.064
		beta	1.198	3.396	1.792	0.122	-1.584	-5.776	0.285
		p-value	**0.027**	**0.035**	-	-	-	-	**0.000**
		beta	1.035	2.559	-	-	-	-	0.395
	WL u	*p-value*	0.136	0.025	0.498	0.913	0.667	0.214	0.027
		beta	0.459	1.919	0.732	0.299	-0.467	-3.684	0.219
		p-value	0.159	0.035	-	-	-	-	0.000
		p-value	-	**0.061**	-	-	-	-	**0.000**
		beta	-	1.417	-	-	-	-	0.286
	RP u	*p-value*	0.263	0.203	0.550	0.915	0.786	0.597	0.004
		beta	0.313	0.985	0.589	-0.267	-0.269	-1.425	0.268
		p-value	-	-	-	-	-	-	**0.000**
		beta	-	-	-	-	-	-	0.307

The significant factors for yod retention in stressed syllables are age, mental urbanisation and social networks. In unstressed syllables it is only age, social networks are significant only in the word list. These results agree with those for the yod index. Yod retention increases with every year of age by 0.4 and 0.3 per cent in the word list and reading passages respectively. Yod retention also increases with positive attitude to rural life style (by up to 1% per unit on the 0–40 MENURB scale) and stronger contacts with local people (by up to 2.6% per unit on the 0–8 SOCNET scale).

Coalescence with yod

p < 5%; **p < 10%**; p > 10%

variant	context	regressors	MENURB	SOCNET	education	occupation	SOCEC	sex	age
coalescence+j	*WL s*	*p-value*	0.386	0.077	0.111	0.896	0.869	0.752	0.420
		beta	0.184	1.044	1.204	-0.247	0.124	0.645	-0.055
		p-value	-	0.063	0.024	-	-	-	0.278
		p-value	-	**0.062**	**0.047**	-	-	-	-
		beta	-	0.997	0.990	-	-	-	-
	RP s	*p-value*	0.619	0.368	0.044	0.797	0.788	0.920	0.683
		beta	0.074	0.369	1.071	0.340	-0.141	-0.143	-0.019
		p-value	-	-	**0.006**	-	-	-	-
		beta	-	-	0.905	-	-	-	-
	WL u	*p-value*	0.807	0.333	0.758	0.329	0.322	0.694	0.074
		beta	-0.040	-0.437	0.178	-1.428	0.575	0.619	0.094
		p-value	-	-	-	-	-	-	**0.012**
		beta	-	-	-	-	-	-	0.079
	RP u	*p-value*	0.016	0.617	0.118	0.842	0.774	0.982	0.702
		beta	0.366	0.204	0.825	-0.263	-0.151	0.032	-0.018
		p-value	**0.010**	-	**0.082**	-	-	-	-
		beta	0.162	-	0.272	-	-	-	-

The results of the coalescence with yod are not as clear as the results for retention. They vary according to the context. In stressed syllables in the word list, the significant factor is education and social networks, in the reading passages it is only education. The higher the level of education, the more coalescence with yod the informants use (one unit on the education scale 0–5 raises coalescence with yod by 1%). Informants who socialise with local people have more coalescence with yod (one unit on the SOCNET scale 0–8 raises coalescence with yod by 1%).

Age is significant in unstressed syllables of the word list, mental urbanisation and education in unstressed syllables of reading passages. In these cases, coalescence with yod minutely increases with age, positive attitude to rural lifestyle and higher level of education.

The relatively small usage of this variant and the small sample may mean that the results are not reliable.

Coalescence

p < 5%; p < 10%; p > 10%

variant	context	*regressors*	MENURB	SOCNET	education	occupation	SOCEC	sex	age
coalescence	*WL s*	*p-value*	0.020	0.006	0.850	0.605	0.228	0.118	0.005
		beta	-0.839	-2.753	0.235	-1.632	1.518	5.364	-0.326
		p-value	0.053	0.007	-	-	-	0.419	0.000
		p-value	**0.055**	**0.008**	-	-	-	-	**0.000**
		beta	-0.676	-2.468	-	-	-	-	-0.369
	RP s	*p-value*	0.031	0.023	0.792	0.794	0.167	0.067	0.004
		beta	-0.749	-2.174	0.318	-0.794	1.683	6.089	-0.322
		p-value	0.117	0.046	-	-	-	0.447	0.000
		p-value	-	**0.090**	-	-	-	-	**0.000**
		beta	-	-1.546	-	-	-	-	-0.396
	WL u	*p-value*	0.183	0.084	0.691	0.800	0.654	0.104	0.005
		beta	-0.468	-1.688	0.491	-0.793	0.558	5.547	-0.323
		p-value	-	0.083	-	-	-	0.157	0.000
		p-value	-	**0.097**	-	-	-	-	**0.000**
		beta	-	-1.443	-	-	-	-	-0.347
	RP u	*p-value*	0.032	0.072	0.964	0.672	0.369	0.425	0.009
		beta	-0.710	-1.633	-0.052	-1.234	1.041	2.507	-0.281
		p-value	**0.054**	**0.083**	-	-	-	-	**0.000**
		beta	-0.608	-1.415	-	-	-	-	-0.320

Age, social networks and mental urbanisation are significant factors for the choice of coalescence without yod in most contexts. Every year of age reduces yod coalescence by about 0.4%, one unit on the SOCNET scale reduces coalescence by 1.4–2.5%, and one unit on the MENURB scale reduces coalescence by up to 0.7%. This means that coalescence decreases with age, and increases among people who have weak ties with the local community and positive attitude to urban life style. Sex is significant only in two contexts, where females have 6% more coalescence than males.

Yod dropping

p < 5%; p < 10%

variant	context	*regressors*	MENURB	SOCNET	education	occupation	SOCEC	sex	age
dropping	*WL s*	*p-value*	0.220	0.157	0.010	0.501	0.752	0.723	0.667
		beta	-0.386	-1.234	-2.928	1.886	-0.352	1.071	0.043
		p-value	-	0.217	0.001	-	-	-	-
		p-value	-	-	**0.002**	-	-	-	-
		beta	-	-	-2.306	-	-	-	-
	RP s	*p-value*	0.072	0.048	0.002	0.897	0.968	0.951	0.535
		beta	-0.523	-1.591	-3.181	0.333	0.041	-0.171	0.057
		p-value	**0.081**	**0.040**	**0.000**	-	-	-	-
		beta	-0.463	-1.503	-2.722	-	-	-	-
	WL u	*p-value*	0.770	0.656	0.021	0.204	0.266	0.129	0.864
		beta	0.049	0.207	-1.401	1.922	-0.666	-2.482	0.009
		p-value	-	-	0.001	-	-	0.229	-
		p-value	-	-	**0.002**	-	-	-	-
		beta	-	-	-1.241	-	-	-	-
	RP u	*p-value*	0.842	0.296	0.014	0.201	0.256	0.452	0.532
		beta	0.031	0.444	-1.361	1.763	-0.621	-1.114	0.031
		p-value	-	-	**0.001**	-	-	-	-
		beta	-	-	-1.197	-	-	-	-

There is an interesting change. **The only social factor significant for omitting yod in all contexts is education**. One unit on the education scale (0–5) reduces yod dropping by 1 to 2%. In other words, the higher the level of education, the lower the amount of yod dropping. Social networks and mental urbanisation in stressed syllables in reading passages are also significant. One unit on the SOCNET scale reduces dropping by 0.5%, and one unit on the MENURB scale reduces dropping by 1.5%. This means that yod dropping in stressed syllables in the less careful style increases among people who have weaker ties with the local community and a positive attitude to urban life style.

The method of multiple regression confirmed the correlation results and revealed certain facts about the interdependence of the social factors that could not be detected by simple correlation. Most factors which were significant in the correlation results are still significant, at least in most contexts, when examined by the multiple regression, and that is when all the social factors are considered at the same time. We also get extra information on the increase or reduction of a particular variant for each social factor. The new facts that the multiple regression revealed are that socio-economic class appeared to be significant for coalescence and dropping when taken separately. However, in connection with other factors it is no longer significant. On the other hand, social networks, insignificant when treated separately, are found to be significant for each yod variant at least in one context but mostly for coalescence and retention.

4.6 Self-reporting

At the end of the interview informants were asked to choose from a list of phonetically spelt words *Tuesday, news, during, presumably, suitable, lucrative, enthusiasm* and *situation* the variant they think they pronounce (Appendix 3.3). The intention was to find out how much the informants are aware of the yod pronunciation variability in their speech and to compare the results with previous studies, e.g. Chambers (2003:243, reporting Trudgill), which claims that women tend to over-report their behaviour. This means that women think they use more standard variants than they actually do, whereas men tend to under-report their behaviour, thinking they use more non-standard variants when in fact they do not. The standard variant here is yod retention, even when yod dropping or coalescence are accepted variants in Received Pronunciation (*suitable, lucrative, situation*).

For some informants yod was clearly not salient (for a discussion of the concept of salience see chapter 6.4). They had problems seeing (in the phonetic spelling) and hearing (when they or I read it out) some of the pronunciation variants, especially the coalesced variants. This might explain the discrepancies in words with four yod variants. We can probably assume that in *suitable, enthusiasm* and *lucrative* with only two possible choices, yod dropping could be salient and therefore the variation in self-evaluation might be caused by over- and under-reporting. Figure 4.56 shows the comparison of pronunciation in the eight yod words in the word list, reading passages and self-reporting. There is slight under-reporting in *suitable* by women and very slight over-reporting in *lucrative* on average. There is under-reporting in *enthusiastic* with both men (30%) and women (10%). Judging by the five words with four possible yod variants, coalescence either does not seem to be salient, or if it is salient, it seems to be stigmatised, since a striking number of informants do not admit or realise that it is the variant they actually use. A considerable number of over-reporting of retention suggests that informants regard retention as salient and as representative of a standard to which they wish to conform, even though their notion of the nature of this standard may be rather vague. *News* is a special case because there is no way of spelling in English that represents the strongly palatalised [ɲ]. There was a blank line in the questionnaire in case the informant felt they said neither *nooz* nor *nyooz*. Only two informants thought they said something different and I recorded their version accordingly. As a result of being able to choose from only two variants when there are in fact four, *news* was a little over-reported, probably instead of coalescence with yod [ɲiuːz]. On the other hand, informants who say [ɲuːz] most likely chose the yod

dropping variant [nuːz]. So, if informants with yod retaining variants (1 and 2) chose retention and informants with yod dropping variants (3 and 4) chose dropping, the self-evaluation of both sexes is then quite accurate. Coalescence after /z/ in general is not a dominant feature and the differences between reading and self-reporting on the coalesced variants (2 and 3) are not great. However, *presumably* is under-reported: about eight men and nine women think that they pronounce it as *prezoomably* when in fact they say *prezyoomably*. *Tuesday, during* and *situation* are massively over-reported in that according to the self-reporting, coalescence takes up a noticeably smaller part in the yod variant distribution. The differences between the reading and self-reports for coalescence are 10-40% in *Tuesday*, 25-55% in *during* and 70-85% in *situation*. On the other hand, some informants believe they omit yod in these words more than they do. The differences between the reading and self-reports for yod dropping are up to 15% in *Tuesday* and up to 22% in *situation*, when actually nobody omits yod in *situation* in the reading. *Situation* is the clearest example of a word where informants had problems deciding what they say. The yod pronunciation in *situation* is the least salient of these eight words because it occurs word-medially in an unstressed syllable. The majority of informants say [sɪʧu'eɪʃn] but are convinced that they pronounce /t/ and not /ʧ/. The over-reporting in *situation* and *during* between men and women is very balanced, unlike in *Tuesday*: men over-report yod retention by over 20% (and yod dropping by not more than 5%), while women over-report yod retention by only up to 10% (and yod dropping by just over 10%).

To summarise the results of the self-reporting, *enthusiasm, presumably* and *suitable* are under-reported in this order; *situation, during, Tuesday* and *lucrative* are over-reported in this order. Except for perhaps *Tuesday* and *enthusiasm*, there is no great sex difference in over- and under-reporting, which does not confirm the results from Trudgill's study. The explanation could be the lack of yod salience. It is puzzling, though, that informants under-report coalescence and over-report yod dropping. Here one would expect respondents to under-report for both forms or over-report for both forms if both coalescence and dropping are socially stigmatised in Essex.

Fig. 4.56 A comparison of the choice of yod variants in reading and self-reporting in eight words

4.7 Conclusion

The study has revealed many inconsistencies in yod behaviour. As for linguistic factors which are discussed in the literature in connection with yod or as a general phonetic principle, it has been confirmed that:

1) the standard variant, i.e. yod retention, occurs more frequently in the more careful style, i.e. word list, but only in stressed syllables
2) coalescence occurs more often in unstressed syllables than in stressed syllables
3) the preceding context is the main decisive factor for the choice of a yod variant.

Yod retention and coalescence with yod occur more frequently in the more careful style at the expense of coalescence and yod dropping (Fig. 4.8).

The proportion of yod retaining variants (1&2) is slightly higher in unstressed than in stressed syllables but the dominance of coalescence in unstressed syllables seems to be analogous to yod dropping in stressed syllables (Fig. 4.6.).

Even though style and stress show differences in the choice of yod variants, the major variation in the choice of yod occurs after individual preceding consonants (Figs. 4.9. and 4.11). Yod retention is the most frequent yod realisation after /n/, /θ/, and /z/; coalescence is the most frequent yod realisation after /t/, /st/ and /d/ regardless of stress, which is the decisive factor for the choice of yod variant after /s/ and /l/. In stressed syllables, yod dropping is the main yod realisation for both /s/ and /l/. In unstressed syllables, /l/ is most often pronounced with retained yod, which is also true for /s/ if we mean both yod retaining variants, otherwise it is coalescence.

The syllable position of yod in a word also seems to influence the choice of the variable: in the 1–3 group pattern (yod in the main stress on the first syllable in 1 to 3 syllable words) yod retention (and coalescence with yod) decreases while yod dropping (and coalescence) increases with the number of syllables in the yod words (Fig. 4.14).

Yod retention is most common before voiced consonants and in the word-final positions in stressed syllables. Yod dropping is most common before semi-vowels and devoiced

consonants in stressed syllables. Coalescence is most common before vowels in stressed syllables and all contexts in unstressed syllables (Figs. 4.33 and 4.34).

Yod words with the same morpheme have mostly a similar distribution (chapter 4.4.6). Deviations are caused by either the contrast of yod in stressed as opposed to unstressed syllable position, or else the reason is unclear.

Even though certain patterns emerge in general, on closer inspection major discrepancies can be seen. Firstly, a variable can be influenced by individual lexical items in addition to phonological context. Lexical diffusion, which takes shape of an S-curve when shown in a diagram, causes some words to be influenced by the change earlier and some later. Common words with a certain phonological environment start the change by fluctuating between the old and the new form until the new form pushes out the old one. When the innovation has spread to about 20% of words, then a majority of words follow in a rapid succession and the change slows down at the end for the last 20% of words (Aitchison 1991, Chambers 2003:222, Llamas 2007). Secondly, the haphazard behaviour of yod distribution in different syllable groups, styles and preceding contexts suggests that a change is in progress.

Multiple linear regression revealed an interdependence between social factors which could not be seen otherwise. As a result, some factors that appear to be insignificant in isolation seem to be influencing the choice of yod. For instance, social networks are found to be a significant factor together with age and mental urbanisation in stressed syllables, assuming that the four yod variants create a phonetic continuum and using the yod index for the calculation. When individual yod variants are seen independently, the factors influencing yod retention and coalescence are age, social networks and mental urbanisation. Coalescence with yod and dropping are connected with education. The results for individual yod variants were also the outcome of considering all social factors.

The main finding is that yod retention increases while coalescence decreases with age. The point where the divergence is largest is between the age ranges 22–45 and 46–60. This is evident also from the overviews of yod distribution after individual consonants (chapter 4.5.4), in particular after /s, st, t, d, n/. In some cases there is also a big gap or a change of the dominant yod realisation between informants aged 46–60 and 61+, i. e. a gap after /n/ and retention instead of coalescence after /st/ and /d/ in the latter group.

A minimal age variation after /l/ suggests a stable pronunciation of /l/ words for at least sixty years. The same applies to /θ/ words in stressed syllables. However, it is only in this case that informants over 61 use discernibly less retention than all other age groups.

There is not much gender variation in general, but adolescent females use more non-standard forms than adolescent males and, similarly, retired females use more non-standard forms than retired males. Informants with a positive attitude to urban lifestyle use considerably more coalescence and dropping than informants with a negative attitude to urban lifestyle. Informants with a higher level of education tend to use more retention and coalescence with yod, and less coalescence and yod dropping. Informants from higher socio-economic groups use more coalescence and less dropping than informants from lower socio-economic groups. However, this is statistically relevant only in stressed syllables. On closer examination of informants aged 45–60, the analysis shows a fall of yod retention and an increase of coalescence with socio-economic class, which partly confirms the trend illustrated in figure 4.51.

5. Case study Weston-super-Mare, North Somerset

5.1 Geographic and demographic information

County North Somerset

North Somerset is a coastal county. It covers an area of 39,085 hectares in the south-west of England. Its population of 188,564 includes 1.4% ethnic group minorities. The county has low unemployment, 36% of economically active persons commute out of the area each day to neighbouring towns and cities such as Bath and Bristol. The industry groups with most employees according to www.neighbourhood.statistics.gov.uk in 2001 were wholesale and retail trade (18%), real estate, renting and business activities (14%), manufacturing (12%), and health and social work (11%).

Weston-super-Mare

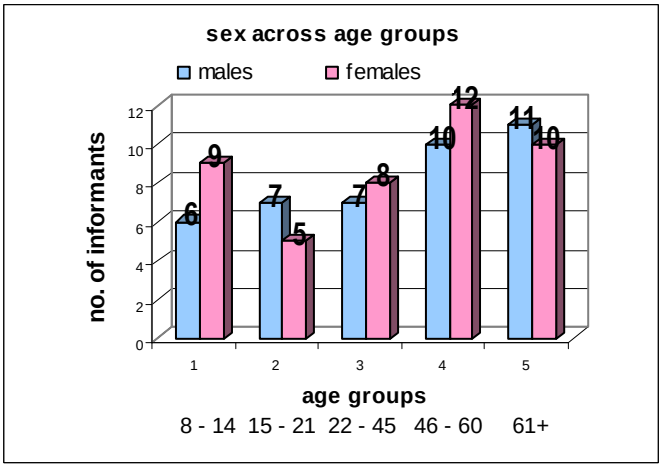
Weston is a coastal town, 29 kilometres south-west of Bristol. It has 74,920 residents (Census 2001). Over 60% informants reside in and around Ashbury drive, officially labelled North Somerset 017E, which is a quiet area of Milton and Old Worle neighbourhood. The following figures from the National Statistics Census 2001 give comparisons of the age distribution, as close as possible to the age distribution of the study sample.

Population 2001		North Somerset 017E	Weston-super-Mare	South West of England
all people	count	1,770	74,920	4,928, 434
males	count	847	36,122	2,396,415
females	count	923	38,798	2,532,019
people aged 8–14	%	8.25		8.82
people aged 15–19	%	6.55		4.80
people aged 20–44	%	24.29		32.38
people aged 45–59	%	23.50		19.93
people aged 60 +	%	30.96		23.93

Figures for these age ranges are not available for Weston. The South West of England has a higher proportion of people over 45 years than England as a whole. The 017E output area has a remarkably higher number of inhabitants over 45 years, especially retired people, at the expense of inhabitants aged 20–44. Ethnicity was not considered as one of the social factors because there are only 0.41% ethnic groups in this neighbourhood.

5.2 Sample characteristics

There are 85 informants, 41 males and 44 females, aged 8–86.

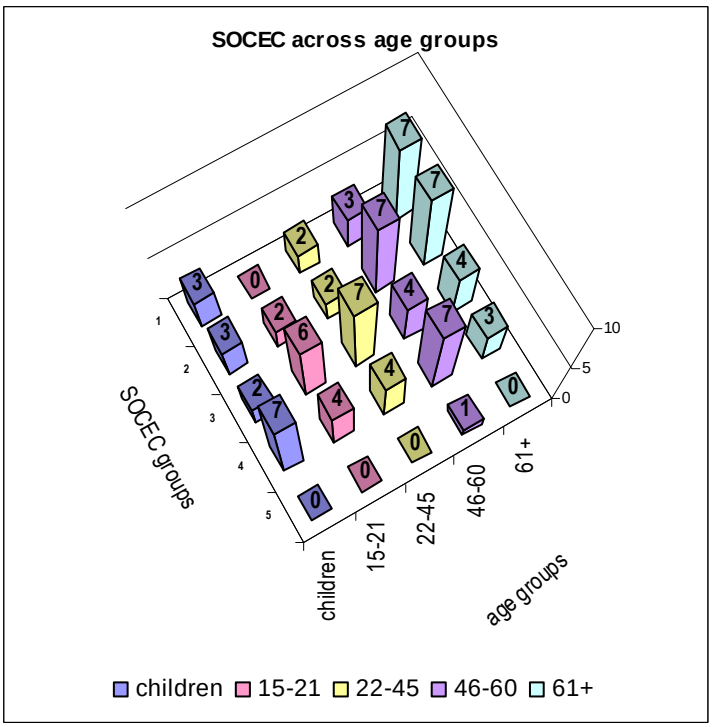


age group	*age*	*male*	*female*
1	8–14	6	9
2	15–21	7	5
3	22–45	7	8
4	46–60	10	12
5	61+	11	10

Fig. 5.1 Distribution of informants according to sex across age groups

Seventy informants have spent more than half their lifetime in North Somerset, mostly in Weston itself.

Socio-economic distribution across the sample



SOCEC score	SOCEC group
0–3	1 (LWC)
4–6	2 (UWC)
7–10	3 (LMC)
11–14	4 (MMC)
15	5 (UMC)

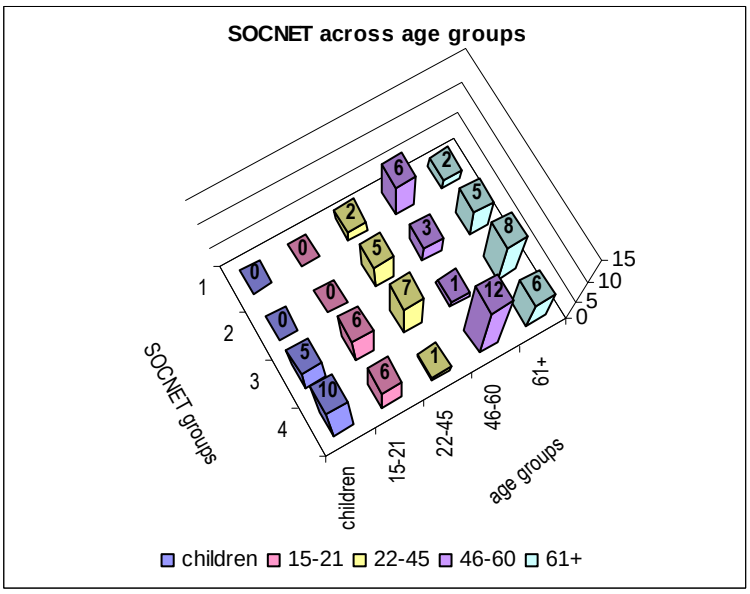
LWC = lower working class
UWC = upper working class
LMC = lower middle class
MMC = middle middle class
UMC = upper middle class

age group	**SOCEC** *1*	*2*	*3*	*4*	*5*
1	3	3	2	7	0
2	0	2	6	4	0
3	2	2	7	4	0
4	3	7	4	7	1
5	7	7	4	3	0

Fig. 5.2 Distribution of informants according to socio-economic groups across age groups

There is a significant negative correlation between socio-economic class and age (-0.320), and between socio-economic class and mental urbanisation (-0.265). The result suggests that socio-economic class decreases with age and with a positive attitude to rural lifestyle. The correlation between socio-economic class and occupation (0.880) is much greater than between socio-economic class and education (0.443). There is only one informant in the SOCEC group 5, which corresponds to upper-middle class. The other four groups have 15–25 informants.

Social network distribution across the sample



SOCNET score	SOCNET group
0–2	1
3–4	2
5–6	3
7–8	4

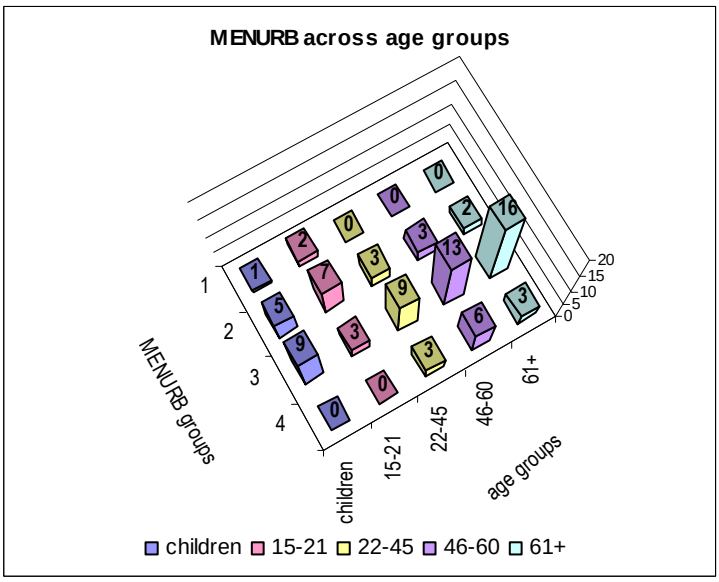
group 1 = no interaction with locals
group 2 = some interaction with locals
group 3 = moderate interaction with locals
group 4 = a lot of interaction with locals

age group	***SOCNET*** *1*	*2*	*3*	*4*
1	0	0	5	10
2	0	0	6	6
3	2	5	7	1
4	6	3	1	12
5	2	5	8	6

Fig. 5.3 Distribution of informants according to social network groups across age groups

There is a significant negative correlation between social networks and age (-0.374), and social networks and education (-0.342). Older informants and informants with a higher level of education tend to communicate less with local people. On the whole, most informants interact a lot with locals.

Mental urbanisation distribution across the sample



MENURB score	MENURB group
0–10	1
11–20	2
21–30	3
31–40	4

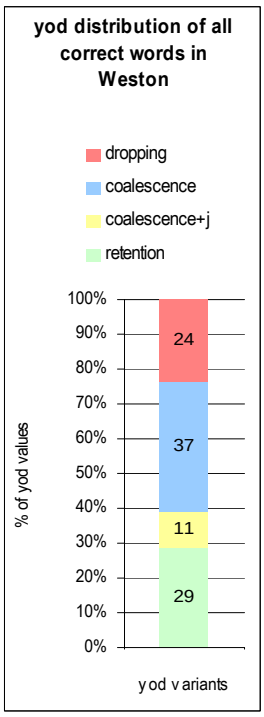
group 1 = very positive attitude to the city
group 2 = positive to neutral attitude to the city
group 3 = neutral to negative attitude to the city
group 4 = very negative attitude to the city

age group	***MENURB*** *1*	*2*	*3*	*4*
1	1	5	9	0
2	2	7	3	0
3	0	3	9	3
4	0	3	13	6
5	0	2	16	3

Fig. 5.4 Distribution of informants according to mental urbanisation groups across age groups

There is a significant positive correlation between mental urbanisation and age (0.446). Informants prefer the rural lifestyle with increasing age. There is also a significant negative correlation with socio-economic class (-0.265): informants from higher socio-economic classes prefer the urban lifestyle. As suggested in the Braintree study, the fact that the MENURB groups are so unevenly distributed implies that the attitude statements need more refinement (see MENURB in chapter 4.2). Most informants have neutral to negative or neutral to positive attitudes to urban lifestyle.

5.3 Overall distribution in Weston-super-Mare

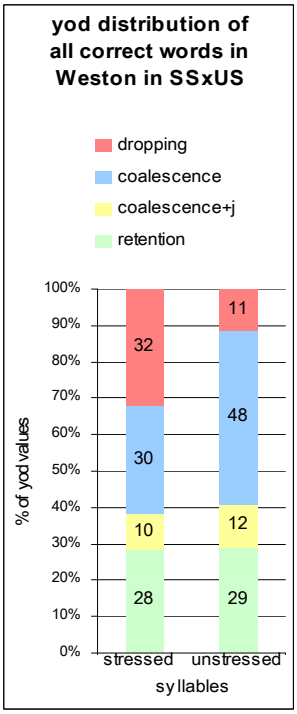


Out of the possible total of 19,295 utterances (227 words multiplied by 85 informants), 18,146 were pronounced correctly and these are shown in the graph. The overall picture shows that the most common yod variant is coalescence (37%), followed by yod retention (29%) and yod dropping (24%). Coalescence with yod takes up the smallest part (11%).

yod variants	*1*	*2*	*3*	*4*	*total*
no. of yod utterances	5192	1918	6710	4326	18146
%	29	11	37	24	100

Fig. 5.5 Yod distribution of all correctly pronounced words

However, it could be misleading to combine words with yod in stressed (SS) and unstressed syllables (US) because of their different linguistic behaviour, therefore it is better to look at the graph with syllable stress separately (Fig. 5.6).



yod variants	*1*	*2*	*3*	*4*	*total*
n SS	3091	1069	3236	3504	10900
% SS	28	10	30	32	100
n US	2101	849	3474	822	7246
% US	29	12	48	11	100

Fig. 5.6 Yod distribution of all correctly pronounced words in stressed and unstressed syllables

Sixty per cent of all utterances occur in stressed syllables and forty per cent in unstressed syllables. The major difference between the two contexts is the distribution of coalescence and dropping. While almost half of all utterances are pronounced with coalescence in unstressed syllables, in stressed syllables the distribution of retention, coalescence and dropping is almost even. The result confirms Bauer's observation about coalescence being more common in unstressed than stressed syllables. The proportion of retention and coalescence with yod is almost the same in stressed and unstressed syllables. This might suggest a phonetic similarity in their usage. Therefore if this group had to be joined with either yod retention or coalescence, it should logically be the former option.
What are the most probable reasons for the choice of a particular variant? Which of the social and linguistic factors are significant and in what way?

5.4 Yod variants across linguistic factors

There are five linguistic factors investigated in this study, some of which might influence the choice of the variable: stress, style, preceding context, following context and the whole syllable stress pattern of a word.
Stress, style and preceding context have been shown to play a part in previous studies on yod variation. The other factors have been considered only in Britain et al. (2008).

5.4.1 Stress

As mentioned above, it is better to keep yod in stressed and unstressed syllables separately in light of the different linguistic behaviour. This principle will be followed for the rest of the study. Informants' yod index (explained in chapter 5.5) shows a positive significant correlation between stressed and unstressed syllables at the 5% level of significance ($p = 0.05$; critical value for $n = 85$ is 0.215; $r = 0.296$).

5.4.2 Style

It is assumed that more non-standard forms occur in less formal contexts. Trudgill (1974) proves this also for /ju/ variation. In a /ju/ pronouncing area this means that there would be more yod retention in a word list than in a reading passage. It would have been ideal to compare the choice of yod variants in a careful style, an interview and in unobserved speech. With this kind of design, though, it would have been impossible to elicit most words due to their rarity or their level of formality, let alone to come across an informal monologue or

conversation containing these words. Therefore it was decided to compare at least a very careful style, reading a list of words (WL), and a careful to natural style, reading short passages with different topics (RP). Figure 5.7 gives an overview of the results of all yod utterances, the only graph which shows even the mispronounced words. Figure 5.8 shows the same data, but without the mispronounced words.

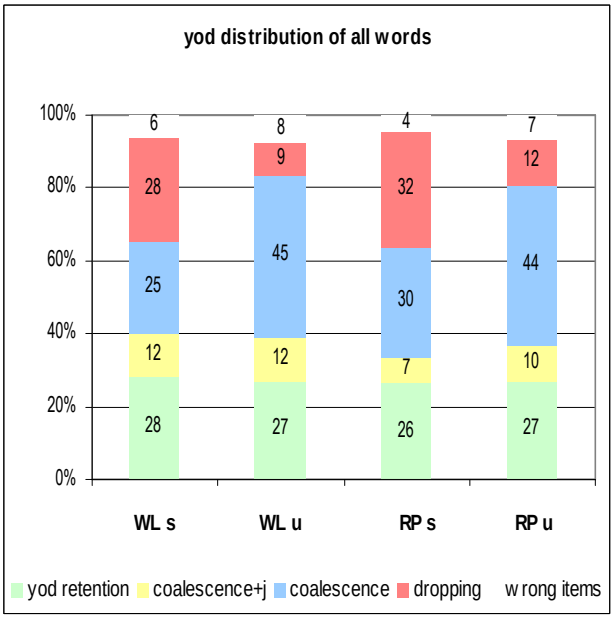


Fig.5.7 Yod distribution in all words in SSxUS in WLxRP

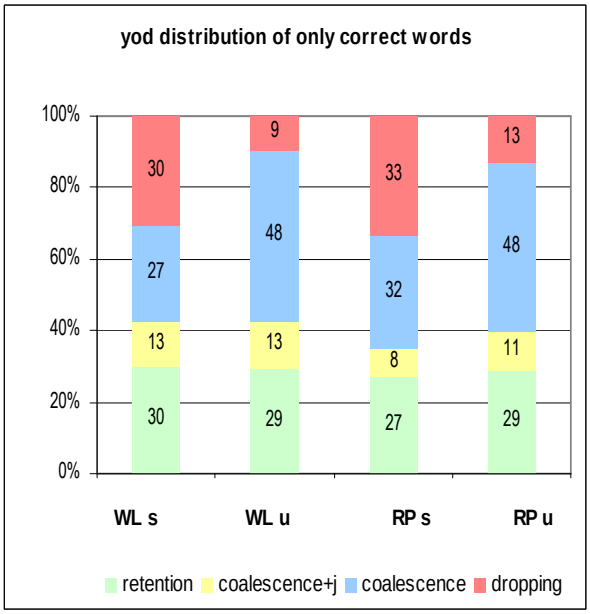


Fig. 5.8 Yod distribution in correct words in SSxUS in WLxRP

Tab. 5.1 Yod distribution in all words in SSxUS in WLxRP

yod variant	Fig. 4.7	1	2	3	4	wrong	total
WL stressed	n	1380	590	1257	1405	298	4930
	%	28	12	25	28	6	100
WL unstressed	n	1016	442	1672	325	285	3740
	%	27	12	45	9	8	100
RP stressed	n	1711	479	1979	2099	277	6545
	%	26	7	30	32	4	100
RP unstressed	n	1085	407	1802	497	279	4070
	%	27	10	44	12	7	100

Tab. 5.2 Yod distribution in correct words in SSxUS in WLxRP

Fig. 4.8	1	2	3	4	total
n	1380	590	1257	1405	4632
%	30	13	27	30	100
n	1016	442	1672	325	3455
%	29	13	48	9	100
n	1711	479	1979	2099	6268
%	27	8	32	33	100
n	1085	407	1802	497	3791
%	29	11	48	13	100

In stressed syllables the predicted pattern occurs ('pattern' refers to the proportions of yod distribution within a group or a word and is used throughout the thesis): there is more yod retention and coalescence with yod in the word list than in the reading passages, where accordingly higher proportions of coalescence and yod dropping are found.
The informants' yod index shows a significant positive correlation between the word list and reading passages even at the 1% level of significance ($p = 0.01$; critical value for $n = 85$ is 0.296; $r = 0.581$).

5.4.3 Preceding linguistic context

As the linguistic categories are not naturally ordered, neither correlation nor multiple linear regression could be used to determine the relations between the linguistic factors and the choice of variable.

Stressed syllables (SS)

The following figure (Fig. 5.9) shows the distribution of yod after the individual consonants in stressed syllables.

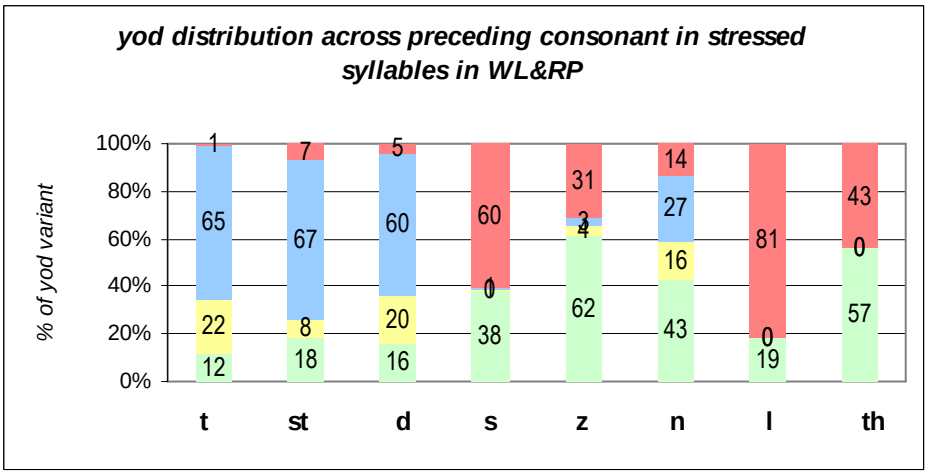


Fig. 5.9 Yod distribution across preceding consonant in stressed syllables in WL&RP

Tab. 5.3 Yod distribution across preceding consonant in stressed syllables in WL&RP

context	*no. of words with a particular variant*						%			
SS	***1***	***2***	***3***	***4***	***total n***		***1***	***2***	***3***	***4***
t	181	330	977	9	1497		12	22	65	1
st	179	76	657	67	979		18	8	67	7
d	292	374	1111	86	1863		16	20	60	5
s	866	9	31	1370	2276		38	0	1	60
z	277	19	15	138	449		62	4	3	31
n	706	261	444	226	1637		43	16	27	14
l	326	0	0	1407	1733		19	0	0	81
th	264	0	0	202	466		57	0	0	43

The most frequent variant in stressed syllables after /t, st, d/ is coalescence; after /z, n, θ/ it is yod retention; and after /s, l/ it is yod dropping.

From these results we can suggest various implicational scales:

1) yod retention, by which we in this case consider both variants 1 and 2 because yod is audible: **z > n > θ > s > d > t > st > l**

This means that yod in stressed syllables is more likely to be retained after /z/ than after /n/, etc. and least frequent after /l/, e.g. yod is more likely to occur in *presumably* than in *renewal* and least likely in *solution*.

2) coalescence, variant 3: **st > t > d > n > (z > s)**

It is more probable to hear coalesced *steward* than *Tuesday*. Coalesced /z/ and /s/ occur only in non-initial positions, e.g. in *presume* more likely than in *pursued*. There is no coalescence with /θ/ in English. There were, however, a very few cases of strongly palatalised /l/ ~ /ʎ/ but in the interest of accuracy these were ignored since I could not be sure about the distinction, and unlike the other coalesced sounds, this one is not a sound of my mother tongue.

3) yod dropping, variant 4: **l > s > θ > z > n > st > d > t**

In this case the yod in *lucrative* is more likely to be omitted than the yod in *suitable* and it is least likely to be heard in *tubular*.

These results seem closest to Altendorf's observations.

The next figure (Fig. 5.10) shows yod distribution across preceding context in both styles, word list and reading passages. The differences are not huge in most cases. However, where

coalescence occurs, there is always a higher score, increased by 3–13%, at the expense of yod retaining variants 1 and 2 in reading passages. Higher values of both coalescence and dropping are predicted in the less careful style, reading passages, but only coalescence proves this assumption to be correct.

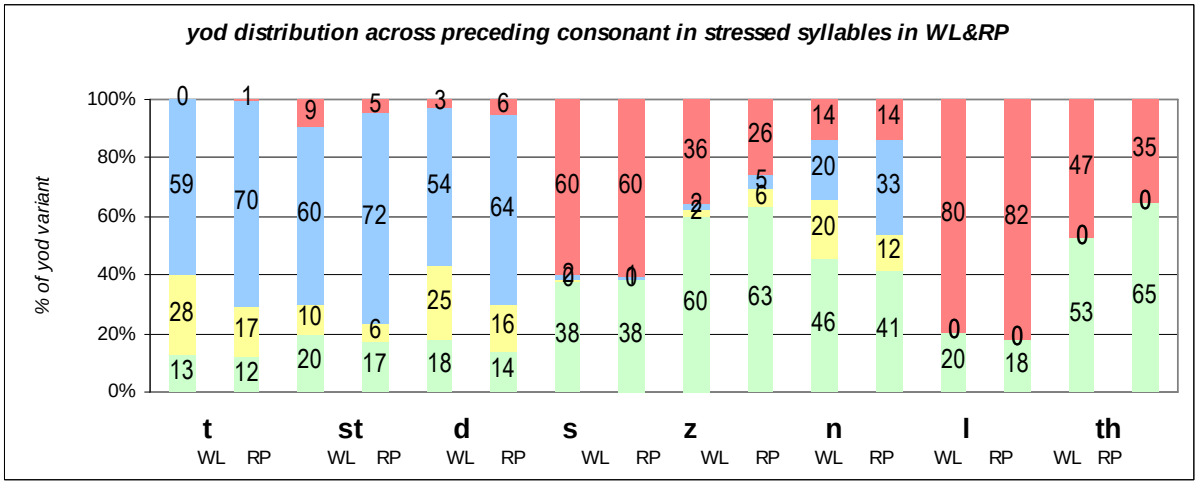


Fig. 5.10 Yod distribution across preceding consonant in stressed syllables, separately in WL and RP

Unstressed syllables (US)

The patterns in unstressed syllables are similar to those in stressed syllables, with the exception of /s/ and /l/. This is not to say that there is no difference – the proportions in stressed syllables vary from the proportions in unstressed syllables, e.g. there is more coalescence after /t, st, d, z/ and /n/ in unstressed syllables at the expense of retention. Yod retention is the most frequent variant after /z, n, l/ and /θ/. Coalescence is the most frequent variant after /t, st, d/ and /s/.

The striking differences after /s/ and /l/ between stressed and unstressed syllables have explanations. In the case of /s/ the coalescence in unstressed syllables is caused by the character of the words – /s/ is, apart from *superfluous* (only in RP, in the tongue twister), in non-initial position, therefore more likely to be coalesced simply because /s/ coalescence never occurs in a word-initial position. Comparison of /s/ non-initial words can be seen in my discussion of syllable groups, group 4 and 7, possibly 8. In conclusion, /s/ in unstressed syllables prefers coalescence to dropping, but the proportion of yod retention in stressed and unstressed syllables is similar. /l/ is a classical example of the historical development, where yod has been lost in stressed syllables, e.g. *lunar*, and still kept in unstressed syllables, e.g.

value. Important details on /l/ in unstressed syllables are to be found in the section on syllable groups and yod distribution in individual words.

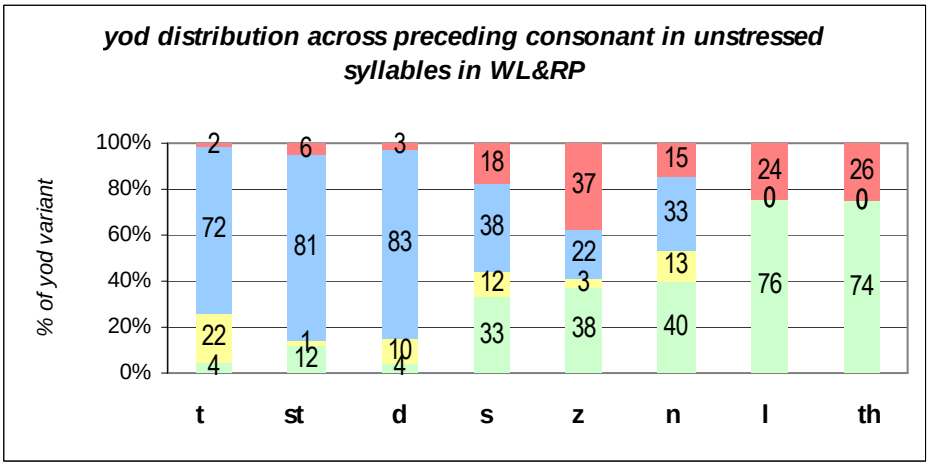


Fig. 5.11 Yod distribution across preceding consonant in unstressed syllables

Tab. 5.4 Yod distribution across preceding consonant in unstressed syllables

context	*no. of words with a particular variant*						%			
US	***1***	***2***	***3***	***4***	***total***		***1***	***2***	***3***	***4***
t	93	455	1515	32	2095		4	22	72	2
st	20	2	130	9	161		12	1	81	6
d	55	132	1069	34	1290		4	10	83	3
s	261	92	305	141	799		33	12	38	18
z	66	6	38	65	175		38	3	22	37
n	512	162	417	190	1281		40	13	33	15
l	864	0	0	272	1136		76	0	0	24
th	230	0	0	79	309		74	0	0	26

The implicational scales for unstressed syllables could be as follows:

1) yod retention, by which we in this case consider both variants 1 and 2 because yod is audible: **l > θ > n > s > z > t > d > st**

This means that yod in unstressed syllables is more likely to be retained after /l/ than after /θ/, etc. and is the least frequent after /st/ and /d/, e.g. yod is more likely to occur in *value* than in *Matthew* and the least likely in *stupidity* or *module*.

2) coalescence, variant 3: **d > st > t > s > n > z**

It is more probable to hear coalesced *module* than *virtue*. Coalesced /s/ and /z/ occur only in word non-initial positions, e.g. in *issue* more likely than in *resumé*. For comments on coalescence with /θ/ and /l/, the same applies as for stressed syllables above.

3) yod dropping, variant 4: **z > θ > l > s > n > st > d > t**

In this case the yod in *resumé* is more likely to be omitted than in *Matthew* and least likely in *statue.*

It must be remembered that these are only possible examples. The implicational scale is not universally valid due to the limited number of words in the study. This subject will be discussed in more detail later.

The following figure (Fig. 5.12) shows yod distribution in unstressed syllables separately in the word list and reading passages. The amount of differences between individual variants in the word list and reading passages is even smaller than in stressed syllables. There is 3–9% higher yod dropping rate after /s, n, l, θ/ and 2–6% higher coalescence rate after /st, d, s, n/ in reading passages than in the word list. Yod retaining variants are equal or slightly more frequent in the word list than in reading passages. The exception in the predicted style differences is /z/, where dropping and coalescence are more frequent in the word list than in reading passages.

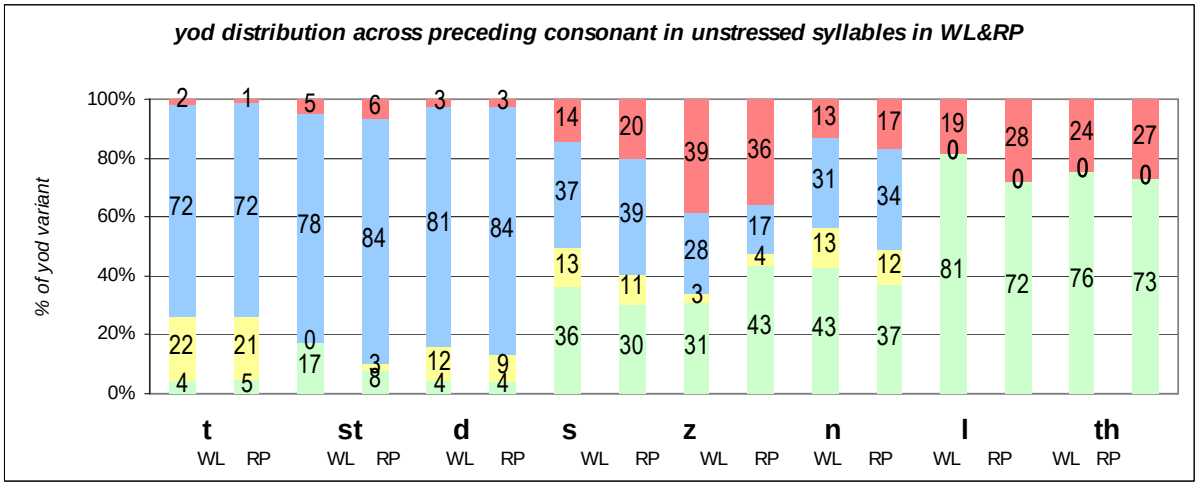


Fig. 5.12 Yod distribution across preceding consonant in unstressed syllables, separately in WL and RP

5.4.4 Syllable groups

This chapter will examine yod distribution in the eight syllable groups in general but also show the differences when preceding context is taken into consideration. Each of the preceding contexts is examined for the distribution of yod variants within the syllable group frame and analysed more closely. The yod distribution of individual words is shown, and possible reasons for variation across the syllable groups as well as within the cells are discussed. Unusual features of pronunciation of the words concerned are mentioned when they occur with several informants. A comparison of the results of the relevant words from Wells's *LPD Pronunciation Preference Survey 1998* with informants from this study is made.

The overview of syllable groups

The results showed differences of yod distribution between stressed and unstressed syllables in general, but is there variation among different syllable groups? Eight syllable groups were tested as designed in the matrix. Five groups of yod in stressed syllables: one-, two-, and three-syllable words with yod in the first syllable, e.g. *tube, Tuesday, tubular*, yod in the second syllable, e.g. *mature*, and yod in secondary stress, e.g. *enthusiastic*; and three groups of yod in unstressed syllables: yod separated from the main stress by a syllable, e.g. *attitude*, yod after a stressed syllable, e.g. *virtue*, and yod before a stressed syllable, e.g. *situation*. The following figure (Fig. 5.13) shows the results of all words from the matrix.

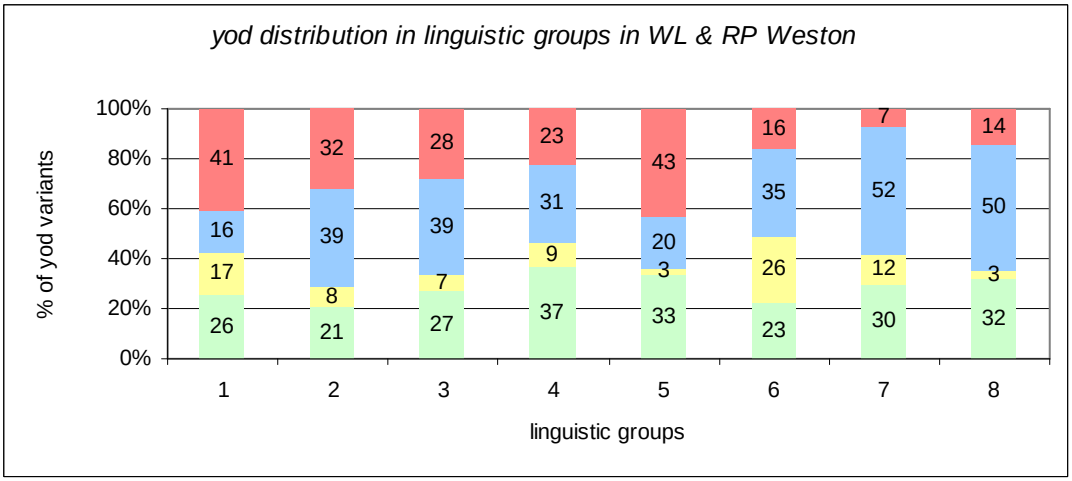
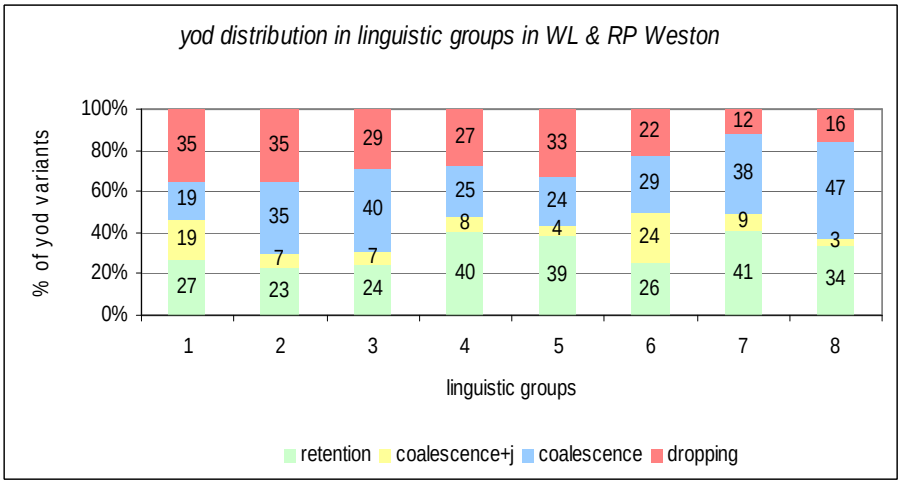


Fig. 5.13 Yod distribution in syllable groups in WL & RP

Tab. 5.5 Yod distribution in syllable groups in WL & RP

	yod variant, counts					yod variant, %				
syllable groups	retention (1)	coal.+ j (2)	coalescence (3)	dropping (4)	total	retention (1)	coal.+ j (2)	coalescence (3)	dropping (4)	total
1	708	459	446	1128	2741	26	17	16	41	100
2	562	214	1047	855	2678	21	8	39	32	100
3	487	118	694	500	1799	27	7	39	28	100
4	1035	251	868	632	2786	37	9	31	23	100
5	299	27	181	389	896	33	3	20	43	100
6	312	365	481	226	1384	23	26	35	16	100
7	1010	399	1750	239	3398	30	12	52	7	100
8	779	85	1243	357	2464	32	3	50	14	100
					18146					

Each column in the above diagram represents the yod variant distribution of all correctly pronounced words from its syllable group. There are two problems. First, the number of words in the matrix cells varies. Second, some cells are empty because such words do not exist or are extremely rare. So if we want to see an objective distribution of all eight syllable groups, each cell, which means one syllable group for one sound in the preceding context, should be represented equally. And apart from that, empty cells should not be included. This gives us an overview of an average yod variant distribution per syllable group, consisting of full cells.



yod distribution in syllable groups in WL &RP in Weston					
	yod variant, %				
syllable groups	1	2	3	4	total
1	27	19	19	35	100
2	23	7	35	35	100
3	24	7	40	29	100
4	40	8	25	27	100
5	39	4	24	33	100
6	26	24	29	22	100
7	41	9	38	12	100
8	34	3	47	16	100

Fig. 5.14 Yod distribution in syllable groups in WL &RP (group mean from full cells only)

Tab. 5.6 Yod distribution in syllable groups in WL &RP (group mean from full cells only)

preceding context	syllable group	yod variant 1	2	3	4	total	%	yod variant 1	2	3	4	total
d	**1**	90	208	176	26	500		18	42	35	5	100
l	**1**	145	0	0	522	667		22	0	0	78	100
n	**1**	173	76	47	40	336		51	23	14	12	100
s	**1**	192	0	0	480	672		29	0	0	71	100
st	**1**	52	54	50	11	167		31	32	30	7	100
t	**1**	38	121	173	3	335		11	36	52	1	100
th	**1**	0	0	0	0	0		0	0	0	0	-
z	**1**	18	0	0	46	64		28	0	0	72	100
							group					
		708	**459**	**446**	**1128**	**2741**	**mean**	**27**	**19**	**19**	**35**	100
d	**2**	46	48	319	5	418		11	11	76	1	100
l	**2**	88	0	0	490	578		15	0	0	85	100
n	**2**	134	54	93	49	330		41	16	28	15	100
s	**2**	130	0	0	251	381		34	0	0	66	100
st	**2**	72	17	303	21	413		17	4	73	5	100
t	**2**	77	95	332	2	506		15	19	66	0	100
th	**2**	15	0	0	37	52		29	0	0	71	100
z	**2**	0	0	0	0	0		0	0	0	0	-
							group					
		562	**214**	**1047**	**855**	**2678**	**mean**	**23**	**7**	**35**	**35**	100
d	**3**	30	18	85	22	155		19	12	55	14	100
l	**3**	34	0	0	123	157		22	0	0	78	100
n	**3**	173	72	191	68	504		34	14	38	13	100
s	**3**	171	0	0	250	421		41	0	0	59	100
st	**3**	55	5	304	35	399		14	1	76	9	100
t	**3**	24	23	114	2	163		15	14	70	1	100
th	**3**	0	0	0	0	0		0	0	0	0	-
z	**3**	0	0	0	0	0		0	0	0	0	-
							group					
		487	**118**	**694**	**500**	**1799**	**mean**	**24**	**7**	**40**	**29**	100
d	**4**	103	90	379	12	584		18	15	65	2	100
l	**4**	59	0	0	272	331		18	0	0	82	100
n	**4**	152	42	84	56	334		46	13	25	17	100
s	**4**	270	9	31	90	400		68	2	8	23	100
st	**4**	0	0	0	0	0		0	0	0	0	-
t	**4**	42	91	358	2	493		9	18	73	0	100
th	**4**	150	0	0	108	259		58	0	0	42	100
z	**4**	259	19	15	92	385		67	5	4	24	100
							group					
		1035	**251**	**867**	**632**	**2786**	**mean**	**40**	**8**	**25**	**27**	100
d	**5**	23	10	152	21	206		11	5	74	10	100
l	**5**	0	0	0	0	0		0	0	0	0	-
n	**5**	74	17	29	13	133		56	13	22	10	100
s	**5**	103	0	0	299	402		26	0	0	74	100
st	**5**	0	0	0	0	0		0	0	0	0	-
t	**5**	0	0	0	0	0		0	0	0	0	-
th	**5**	99	0	0	56	155		64	0	0	36	100
z	**5**	0	0	0	0	0		0	0	0	0	-
							group					
		299	**27**	**181**	**389**	**896**	**mean**	**39**	**4**	**24**	**33**	100

d	**6**	24	65	68	5	162		15	40	42	3	100
l	**6**	67	0	0	179	246		27	0	0	73	100
n	**6**	166	59	57	39	321		52	18	18	12	100
s	**6**	0	0	0	0	0		0	0	0	0	-
st	**6**	0	0	0	0	0		0	0	0	0	-
t	**6**	55	241	356	3	655		8	37	54	0	100
th	**6**	0	0	0	0	0		0	0	0	0	-
z	**6**	0	0	0	0	0		0	0	0	0	-
		312	**365**	**481**	**226**	**1384**	**group mean**	**26**	**24**	**29**	**22**	100
d	**7**	16	39	639	15	709		2	6	90	2	100
l	**7**	470	0	0	30	500		94	0	0	6	100
n	**7**	197	65	173	67	502		39	13	34	13	100
s	**7**	105	90	176	26	397		26	23	44	7	100
st	**7**	0	0	0	0	0		0	0	0	0	-
t	**7**	20	199	724	6	949		2	21	76	1	100
th	**7**	136	0	0	30	166		82	0	0	18	100
z	**7**	66	6	38	65	175		38	3	22	37	100
		1010	**399**	**1750**	**239**	**3398**	**group mean**	**41**	**9**	**38**	**12**	100
d	**8**	15	28	362	14	419		4	7	86	3	100
l	**8**	327	0	0	63	390		84	0	0	16	100
n	**8**	149	38	187	84	458		33	8	41	18	100
s	**8**	156	2	129	115	402		39	0	32	29	100
st	**8**	20	2	130	9	161		12	1	81	6	100
t	**8**	18	15	435	23	491		4	3	89	5	100
th	**8**	94	0	0	49	143		66	0	0	34	100
z	**8**	0	0	0	0	0		0	0	0	0	-
		779	**85**	**1243**	**357**	**2464**	**group mean**	**34**	**3**	**47**	**16**	100

Words with yod in main stress on the first syllable, groups 1 to 3, suggest a pattern only vaguely: coalescence increases with the number of syllables. There are more yod retaining variants (1&2) in syllable group 1 compared to group 2. There is more yod dropping in syllable groups 1 and 2 than in group 3. The most frequent variant in one-syllable words is yod dropping with 35%, coalescence and dropping create 35% each in two-syllable words, and in three-syllable words coalescence occurs most often with 40%. This means that for instance *dew* is more likely to be pronounced /dju:/ rather than /ʤu:/, and *duty* /ʤu:tɪ/ rather than /dju:tɪ/, unless they are pronounced without yod /du:/ and /du:tɪ/.

Group 4, yod in the main stress on the second syllable, and 5, yod in secondary stress, have a similar pattern, different from groups 1 to 3. Yod retention is the dominant variant with 40% and 39% respectively. Coalescence and dropping share almost equally the remaining part in group 4, while in group 5, dropping occurs more often.

Group 6, yod in an unstressed syllable separated from the main stress by another syllable, has a unique distribution: all yod variants represent over 20%. On the whole, the yod distribution

of group 6 is closer to the distribution of stressed syllables rather than the unstressed ones, which supports Bauer's observation that yod in this position behaves more like in a stressed than an unstressed environment.

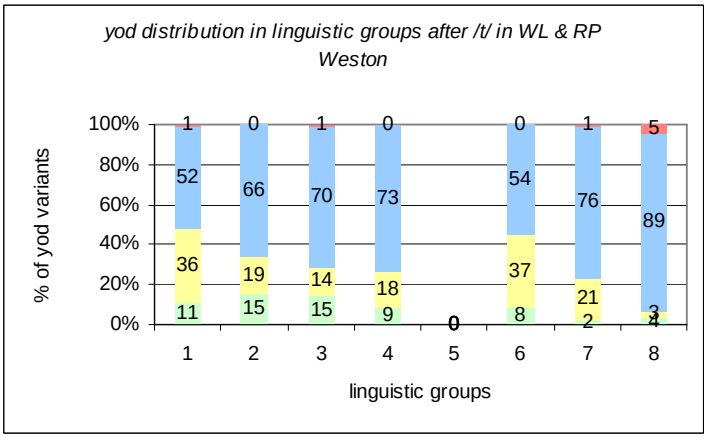
The other two unstressed-syllable groups are not alike. The most frequent variant in group 7, yod after a stressed syllable, is yod retention (41%), closely followed by coalescence (38%). The most common variant in group 8, yod before a stressed syllable, is coalescence (47%). They both have less yod dropping than stressed syllables.

The differences among the eight syllable groups are not as great as expected. Nevertheless, Jones's §871 and partly §886 on syllable stress and length introduced in chapter 3.2 are valid for the Weston data for describing yod presence or absence. The former paragraph concerns the diversity of the unstressed-syllable groups 7 and 8 – more yod dropping variants (3&4) in group 8 than in 7. The latter suggests more yod retaining variants in syllable group 1 compared to 2 and 3.

5.4.5 Syllable groups in different preceding contexts

Since some yod variants do not exist in all syllable groups after certain sounds (to be specific there is no coalescence after /l/ and /θ/ at all, and /s/ and /z/ can be coalesced in a non-initial syllable only), it is necessary to look at the yod realisations in each preceding context separately to see the yod distribution with only the existing pronunciation options, to observe how the distributions vary, and possibly after which alveolars yod has a similar behaviour.

Syllable groups after /t/



t	*yod variant*					%	*yod variant*			
	1	2	3	4	total		1	2	3	4
1	38	121	173	3	335		11	36	52	1
2	77	95	332	2	506		15	19	66	0
3	24	23	114	2	163		15	14	70	1
4	42	91	358	2	493		9	18	73	0
5	0	0	0	0	0		0	0	0	0
6	55	241	356	3	655		8	37	54	0
7	20	199	724	6	949		2	21	76	1
8	18	15	435	23	491		4	3	89	5
					3592					

Fig. 4.15 Syllable groups after /t/

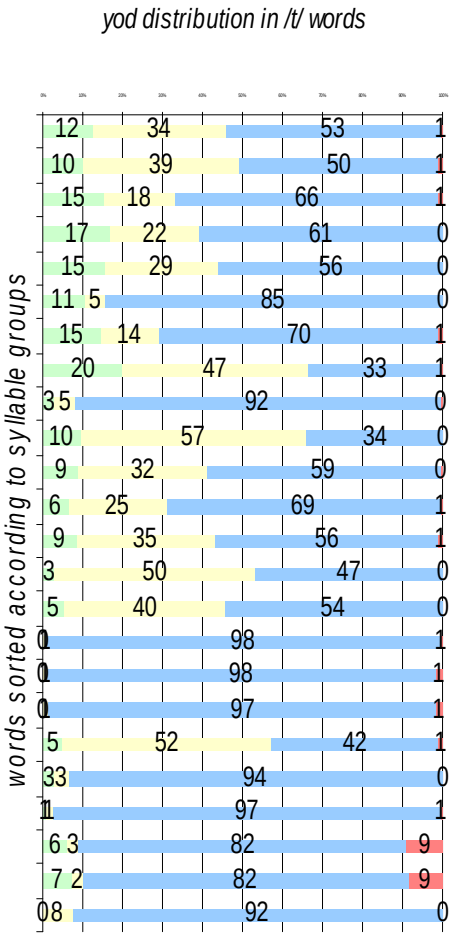
Coalescence is clearly the dominant variant after /t/ in all syllable groups. Yod dropping on the other hand hardly appears.

Yod retaining variants (1&2) decrease from syllable group 1 to group 4, while coalescence increases. This development is not valid, though, if we look at retention or coalescence with yod separately. There is hardly any dropping in stressed syllables.

The yod distribution of group 6 is very similar to group 1.

Coalescence and dropping are more frequent in group 8 than in group 7 and overall more common in unstressed than in stressed syllables.

While this provides a clearer picture of the distribution of yod variants after a particular alveolar in a particular stress pattern, there are, in some cases, noticeable distinctions between individual words within one cell. That is why the yod distribution in individual words will be added for illustration and as a possible help in further research.



/t/ words	group	1	2	3	4	total	1	2	3	4
tube	1	21	57	90	1	169	12	34	53	1
tune	1	17	64	83	2	166	10	39	50	1
Tuesday	2	26	30	111	2	169	15	18	66	1
tuna	2	29	37	103	0	169	17	22	61	0
Tudor	2	13	24	47	0	84	15	29	56	0
tulip	2	9	4	71	0	84	11	5	85	0
tubular	3	24	23	114	2	163	15	14	70	1
attuned	4	32	75	53	1	161	20	47	33	1
mature	4	10	16	305	1	332	3	5	92	0
attitude	6	16	95	57	0	168	10	57	34	0
substitute	6	22	79	145	1	247	9	32	59	0
constitute	6	10	39	109	1	159	6	25	69	1
aptitude	6	7	28	45	1	81	9	35	56	1
virtue	7	5	82	77	0	164	3	50	47	0
statue	7	9	66	89	0	164	5	40	54	0
perpetual	7	0	2	158	1	161	0	1	98	1
punctual	7	0	2	232	3	237	0	1	98	1
intellectual	7	0	1	75	1	77	0	1	97	1
Neptune	7	4	44	35	1	84	5	52	42	1
voluptuousness	7	2	2	58	0	62	3	3	94	0
situation	8	2	2	163	1	168	1	1	97	1
intuition	8	10	5	133	15	163	6	3	82	9
tuition	8	6	2	67	7	82	7	2	82	9
statuette	8	0	6	72	0	78	0	8	92	0

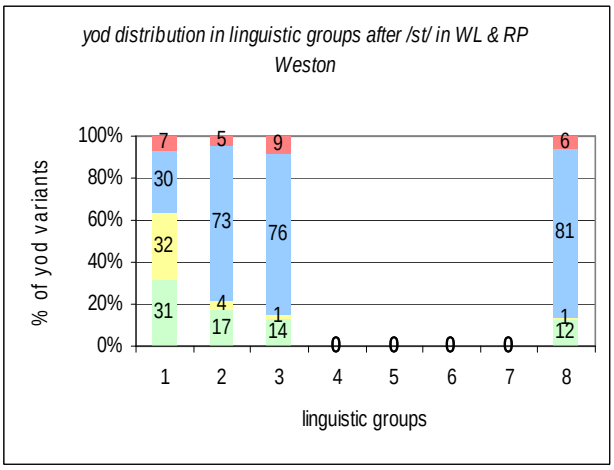
Fig. 5.16 Yod distribution in /t/ words

With reference to Daniel Jones's notes on the length of English vowels (Jones, 1972:232) and the hypothesis on yod behaviour derived from them (chapter 3.2), there is no consistent difference in yod presence in stressed as opposed to unstressed syllables. However, if we look at words with yod in stressed syllables (groups 1 to 4) and words with yod in syllable-final position in unstressed syllables (words in group 6 and words in group 7 marked green in the matrix: *attitude, substitute, aptitude, constitute, virtue, statue* and *Neptune*) as one grouping and the rest of the words in unstressed syllables (*perpetual, punctual, intellectual, voluptuousness, situation, intuition* and *statuette*) as another grouping, there is a noticeable difference: the former has up to 67% yod presence (yod variants 1&2) compared to the latter with no more than 9% yod presence. In the first grouping, words with /ju:/ in a stressed syllable have 10% and more yod retention whereas words with /ju:/ in an unstressed syllable have less than 10% yod retention. Words ending in *-tual* are 97% to 98% coalesced. *Punctual* was pronounced /pʌŋkʃuəl/ seven times and therefore excluded from the sample.

Tune, situation and *perpetual* are the words from Wells's *LPD Pronunciation Preference Survey 1998*. There is a considerable difference between the results, even if we merge coalescence with yod with retention, especially in unstressed syllables. Wells's respondents mostly retain yod in all three words, whereas the Weston respondents mostly use coalescence. The different results might partly be caused by the research method and yod salience. Wells's language aware informants claimed to pronounce the words according to their own judgement. However, the presence of /tju/ in an unstressed syllable makes it less likely that even language aware speakers will notice the exact pronunciation.

	Wells's informants			Weston informants			
word	retention	coalescence	dropping	retention	coalescence+j	coalescence	dropping
tune	64 %	35 %	1 %	10%	39%	50%	1%
situation	65 %	35 %	-	1%	1%	97%	1%
perpetual	57 %	42 %	-	-	1%	98%	1%

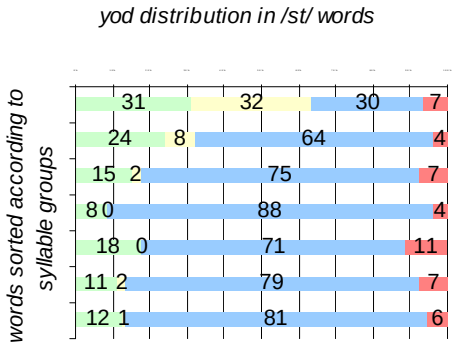
Syllable groups after /st/



st	yod variant						yod variant			
	1	2	3	4	total	%	1	2	3	4
1	52	54	50	11	167		31	32	30	7
2	72	17	303	21	413		17	4	73	5
3	55	5	304	35	399		14	1	76	9
4	0	0	0	0	0		0	0	0	0
5	0	0	0	0	0		0	0	0	0
6	0	0	0	0	0		0	0	0	0
7	0	0	0	0	0		0	0	0	0
8	20	2	130	9	161		12	1	81	6
					1140					

Fig. 5.17 Syllable groups after /st/

The /st/ cluster was included to be compared with /t/. In general there is more retention and dropping after /st/ than after /t/. The 1 to 3 group pattern is visible here: retention and coalescence with yod decrease with the number of syllables while coalescence increases.

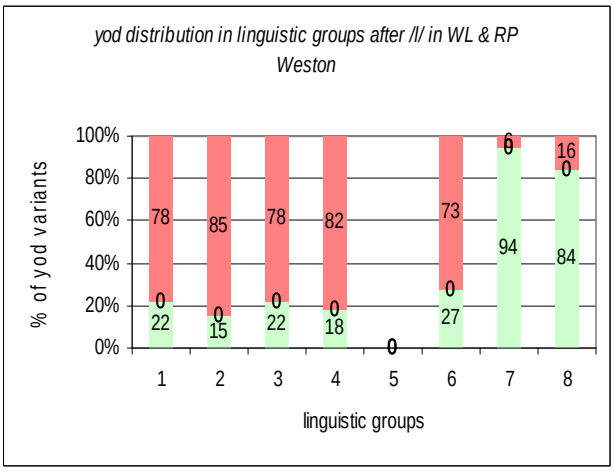


/st/ words	group	1	2	3	4	total	1	2	3	4
stew	1	52	54	50	11	167	31	32	30	7
stupid	2	40	13	106	6	165	24	8	64	4
steward	2	25	4	124	12	165	15	2	75	7
Stewart's	2	7	0	73	3	83	8	0	88	4
studious	3	27	0	110	17	154	18	0	71	11
studio	3	28	5	194	18	245	11	2	79	7
stupidity	8	20	2	130	9	161	12	1	81	6

Fig. 5.18 Yod distribution in /st/ words

The pattern of the only unstressed /st/ word looks no different from the stressed words. *Stew* and *stupid* have noticeably more yod retaining variants than the other words.

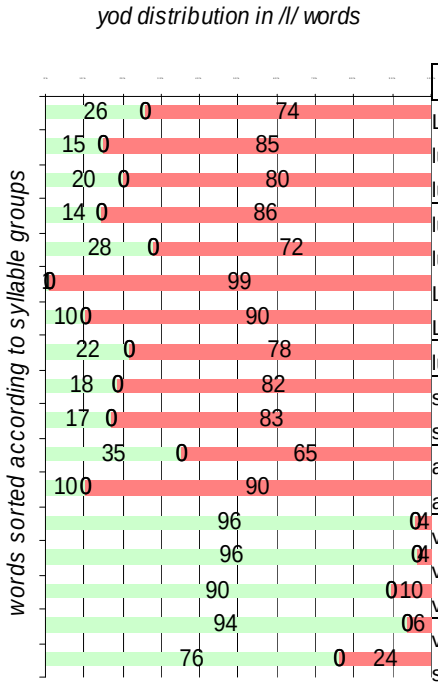
Syllable groups after /l/



l	yod variant						yod variant			
	1	2	3	4	total	%	1	2	3	4
1	145	0	0	522	667		22	0	0	78
2	88	0	0	490	578		15	0	0	85
3	34	0	0	123	157		22	0	0	78
4	59	0	0	272	331		18	0	0	82
5	0	0	0	0	0		0	0	0	0
6	67	0	0	179	246		27	0	0	73
7	470	0	0	30	500		94	0	0	6
8	327	0	0	63	390		84	0	0	16
					2869					

Fig. 4.19 Syllable groups after /l/

As mentioned before, there is no coalescence after /l/, however, /l/ is sometimes strongly palatalised. Yod after /l/ is also often centralised or even fronted. Even though there is a clear division after /l/: yod is dropped in stressed syllables and group 6, and retained in unstressed syllables, the variation is much greater than expected.



/l/ words	group	1	2	3	4	total	1	2	3	4
Luke	1	87	0	0	249	336	26	0	0	74
luce	1	25	0	0	141	166	15	0	0	85
lure	1	33	0	0	132	165	20	0	0	80
lucid	2	24	0	0	142	166	14	0	0	86
lunar	2	46	0	0	118	164	28	0	0	72
Lucy	2	1	0	0	83	84	1	0	0	99
Luton	2	17	0	0	147	164	10	0	0	90
lucrative	3	34	0	0	123	157	22	0	0	78
solution	4	31	0	0	137	168	18	0	0	82
salute	4	28	0	0	135	163	17	0	0	83
absolute	6	59	0	0	108	167	35	0	0	65
absolutely	6	8	0	0	71	79	10	0	0	90
value	7	161	0	0	7	168	96	0	0	4
valuable	7	158	0	0	6	164	96	0	0	4
volumes	7	151	0	0	17	168	90	0	0	10
valuation	8	156	0	0	10	166	94	0	0	6
salutation	8	171	0	0	53	224	76	0	0	24

Fig. 5.20 Yod distribution in /l/ words

The surprisingly high proportions of yod retention in stressed syllables are mostly consistent, therefore one cannot assume that there is any lexical reason for it. More yod dropping after /l/ might be expected in the more common words, especially in common proper names, but this is not reflected in the data: *Luke* is more frequent than *Lucy* and *Luton* is the least frequent of the proper names.

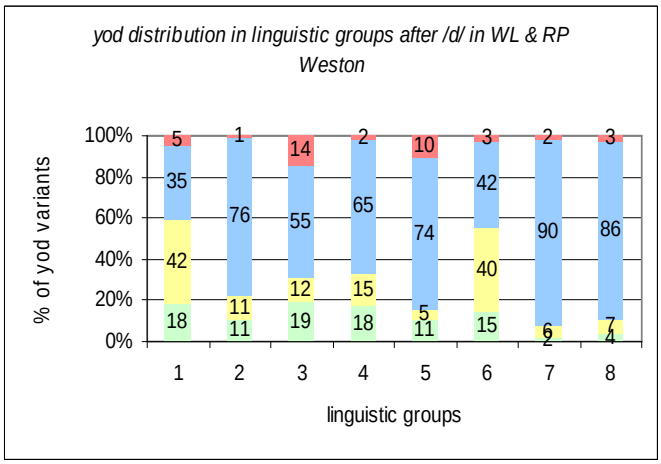
The 25% difference in yod retention between *absolute* and *absolutely* is very interesting, because words with the same morpheme often have a similar distribution of yod realisations. A possible explanation might be the position of /ju/ in a word-final syllable in contrast to word-medial syllable, in which case there should also be a difference between *salute* and *solution*, which there is not.

The higher rate of yod dropping in *salutation* (US) is most likely connected with the common yod dropping in *salute* (SS).

There were at least 128 utterances with strongly palatalised l /ʎ/.

Lure in Wells's *LPD Pronunciation Preference Survey 1998* has 58% yod retention and 42% of yod dropping, but Weston informants favour dropping in 80% of cases.

Syllable groups after /d/

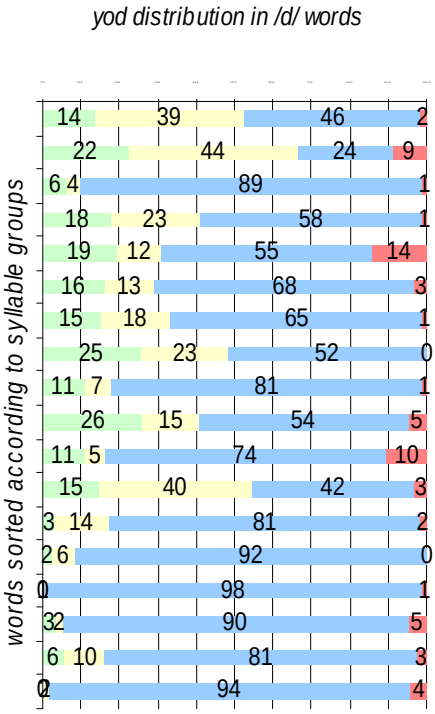


	yod variant						yod variant			
d	1	2	3	4	total	%	1	2	3	4
1	90	208	176	26	500		18	42	35	5
2	46	48	319	5	418		11	11	76	1
3	30	18	85	22	155		19	12	55	14
4	103	90	379	12	584		18	15	65	2
5	23	10	152	21	206		11	5	74	10
6	24	65	68	5	162		15	40	42	3
7	16	39	639	15	709		2	6	90	2
8	15	28	362	14	419		4	7	86	3
					3153					

Fig. 5.21 Syllable groups after /d/

Coalescence is the most frequent variant in seven of the eight groups, followed by coalescence with yod or yod retention. The least common variant is yod dropping overall.

The unstressed-syllable groups 7 and 8 have a very close yod distribution, where coalescence takes up 90% and 86% respectively.



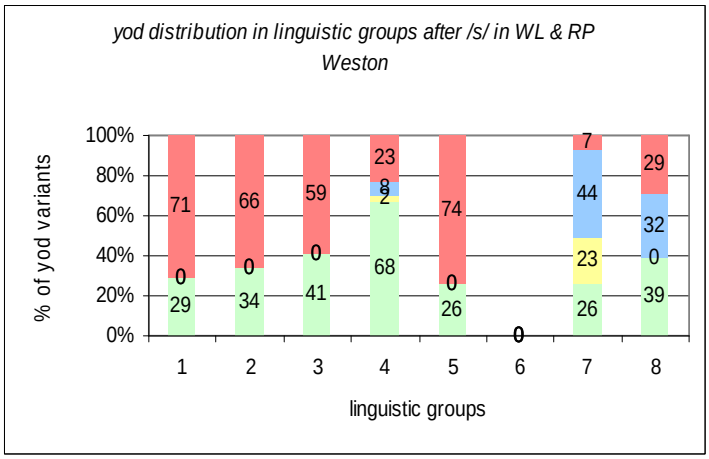
/d/ words	group	1	2	3	4	total	1	2	3	4
due	1	34	98	115	4	251	14	39	46	2
dew	1	56	110	61	22	249	22	44	24	9
during	2	16	9	222	3	250	6	4	89	1
duty	2	30	39	97	2	168	18	23	58	1
dubious	3	30	18	85	22	155	19	12	55	14
produced	4	27	22	114	5	168	16	13	68	3
reduce	4	25	31	110	2	168	15	18	65	1
induced	4	21	19	43	0	83	25	23	52	0
endure	4	9	6	68	1	84	11	7	81	1
inducement	4	21	12	44	4	81	26	15	54	5
duodenal	5	23	10	152	21	206	11	5	74	10
residue	6	24	65	68	5	162	15	40	42	3
module	7	5	24	136	3	168	3	14	81	2
schedule	7	4	10	154	0	168	2	6	92	0
individual	7	0	1	165	2	168	0	1	98	1
deciduous	7	7	4	184	10	205	3	2	90	5
duration	8	15	25	204	7	251	6	10	81	3
education	8	0	3	158	7	168	0	2	94	4

Fig. 5.22 Yod distribution in /d/ words

There is an interesting difference between the homophones *due* and *dew* in group 1. The adjective/adverb *due* has 22% more coalescence than the noun *dew*. It could either be explained by the different parts of speech or the spelling. Unfortunately, there is no other /ju/ word spelt with *-ew-* after /d/ in the study. Another example of different parts of speech is the preposition *during*, which has considerably more coalescence than a noun from the same group *duty*. It is not quite clear whether a part of speech has an effect on yod pronunciation. *Due* and *residue* have almost an identical yod distribution, even though they are different parts of speech. On the other hand, yod is in a word-final position in both words. The same spelling of *due* seems to have greater influence on the pronunciation than its homophone *dew*. Another observation concerns frequency, which is shown in the matrix next to every word and refers to the number of occurrences in the *British National Corpus*. The less frequent words from a syllable group tend to have more yod retaining variants, e.g. *dew* is rarer than *due*, *deciduous* is rarer than *individual* etc. *Inducement* is the least frequent of the words in stressed syllables and has the highest rate of yod retention. These are hypotheses which might be explored further.

During and *schedule* are the words from Wells's *LPD Pronunciation Preference Survey 1998.* The results are dissimilar again in the same way. The most frequent variant with Wells's respondents is yod retention 65% and 79% respectively, whereas Weston respondents have 89% and 92% coalescence in these words.

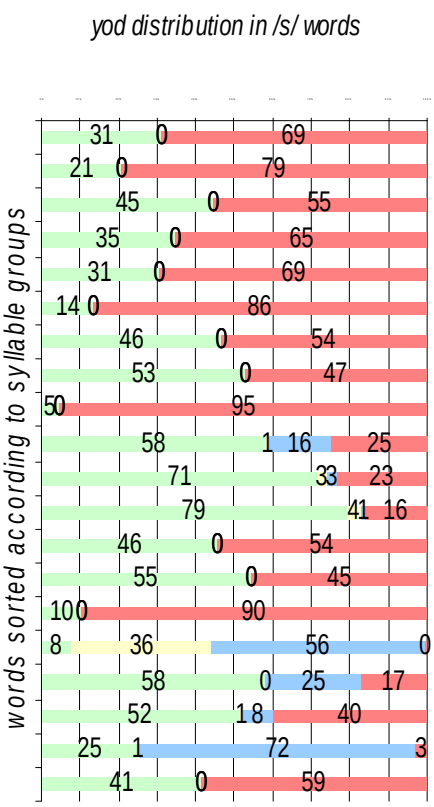
Syllable groups after /s/



s	yod variant						yod variant			
	1	2	3	4	total	%	1	2	3	4
1	192	0	0	480	672		29	0	0	71
2	130	0	0	251	381		34	0	0	66
3	171	0	0	250	421		41	0	0	59
4	270	9	31	90	400		68	2	8	23
5	103	0	0	299	402		26	0	0	74
6	0	0	0	0	0		0	0	0	0
7	105	90	176	26	397		26	23	44	7
8	156	2	129	115	402		39	0	32	29
					3075					

Fig. 5.23 Syllable groups after /s/

As mentioned in the overview of the previous context, /sju/ is a problematic sound in that it can be coalesced only in word-non-initial positions, which is why there is no coalescence in syllable groups 1, 2, 3 and in this study also in group 5 and *superfluous* in group 8.
The most frequent yod variant in the groups where coalescence is not possible, i.e. in stressed syllables except group 4, is yod dropping with 59–74%. The 1–3 group pattern is reversed here: yod retention increases while yod dropping decreases with the number of syllables.
Even though coalescence is possible in group 4, i.e. *assume*, *pursued* and *consume*, it accounts for only 8% and 2% with yod. 68% of the yod distribution is yod retention, which makes a reverse contrasting pattern with the other stressed-syllable groups.
The unstressed-syllable groups vary: there is over 20% of coalescence with yod in group 7 as opposed to no occurrence in group 8; and over 20% more yod dropping in group 8. The typical unstressed syllable pattern with a majority of coalescence does not apply with /s/.

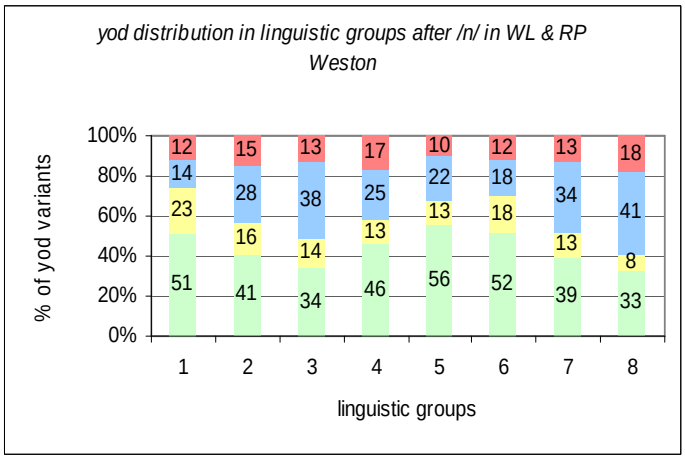


/s/ words	group	1	2	3	4	total	1	2	3	4
suit	1	157	0	0	347	504	31	0	0	69
sue	1	35	0	0	133	168	21	0	0	79
super	2	73	0	0	91	164	45	0	0	55
Susan's	2	28	0	0	53	81	35	0	0	65
sewin	2	19	0	0	43	62	31	0	0	69
suet	2	10	0	0	64	74	14	0	0	86
suitable	3	78	0	0	90	168	46	0	0	54
Superman	3	89	0	0	79	168	53	0	0	47
suicide	3	4	0	0	81	85	5	0	0	95
assume	4	95	2	26	41	164	58	1	16	25
pursued	4	110	4	4	36	154	71	3	3	23
consumed	4	65	3	1	13	82	79	4	1	16
suicidal	5	36	0	0	43	79	46	0	0	54
suitability	5	42	0	0	35	77	55	0	0	45
superstition	5	25	0	0	221	246	10	0	0	90
issue	7	20	90	139	1	250	8	36	56	0
peninsula	7	85	0	37	25	147	58	0	25	17
insulation	8	85	1	13	66	165	52	1	8	40
sensuality	8	40	1	116	5	162	25	1	72	3
superfluous	8	31	0	0	44	75	41	0	0	59

Fig. 5.24 Yod distribution in /s/ words

The ad hoc yod distribution of /s/ words seem to suggest that the variation is perhaps lexical rather than phonological. Words with /sju/ in a non-initial position tend to have noticeably less yod dropping than words with /sju/ word-initially, regardless of stress. In these words, dropping is partly replaced by coalescence, especially in unstressed syllables. Very common is /u/ centralisation or fronting after /s/, there are for instance 27 cases of this feature in *Superman*.

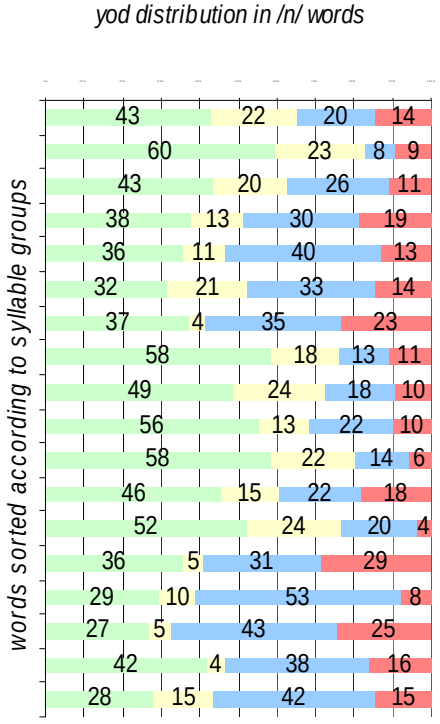
Syllable groups after /n/



n	yod variant					%	yod variant			
	1	2	3	4	total		1	2	3	4
1	173	76	47	40	336		51	23	14	12
2	134	54	93	49	330		41	16	28	15
3	173	72	191	68	504		34	14	38	13
4	152	42	84	56	334		46	13	25	17
5	74	17	29	13	133		56	13	22	10
6	166	59	57	39	321		52	18	18	12
7	197	65	173	67	502		39	13	34	13
8	149	38	187	84	458		33	8	41	18
					2918					

Fig. 5.25 Syllable groups after /n/

The most frequent variant in /n/ words is yod retention in most groups, only in groups 3 and 8 is it coalescence. The proportion of coalescence after /n/ is not as great as after /t/ or /d/. /n/ is a good example of the 1–3 group pattern: yod-present variants decrease with the number of syllables while coalescence and dropping increase. The distinction of yod distribution between stressed and unstressed syllables is not convincing, e.g. group 3 as opposed to 7.



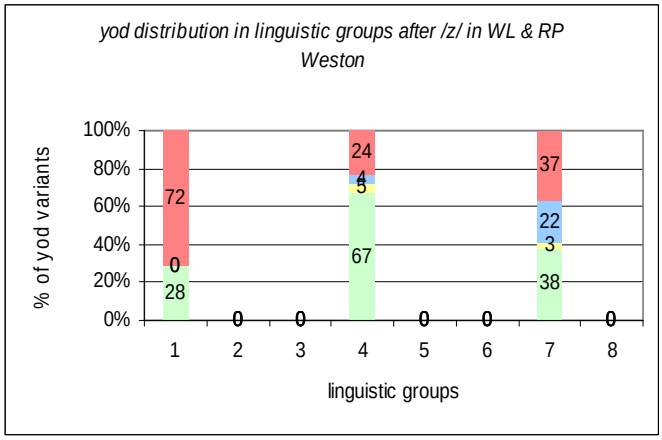
/n/ words	group	1	2	3	4	total	1	2	3	4
new	1	72	37	34	24	167	43	22	20	14
news	1	101	39	13	16	169	60	23	8	9
neutral	2	71	32	43	18	164	43	20	26	11
nuisance	2	63	22	50	31	166	38	13	30	19
nuclear	3	120	37	135	44	336	36	11	40	13
newcomer	3	53	35	56	24	168	32	21	33	14
renewal	4	62	7	58	39	166	37	4	35	23
renew	4	49	15	11	9	84	58	18	13	11
RENEWS	4	41	20	15	8	84	49	24	18	10
numismatic	5	74	17	29	13	133	56	13	22	10
revenue	6	90	34	21	9	154	58	22	14	6
avenue	6	76	25	36	30	167	46	15	22	18
menu	7	88	41	33	6	168	52	24	20	4
January	7	60	8	51	48	167	36	5	31	29
annual	7	49	16	89	13	167	29	10	53	8
neutrality	8	41	8	65	37	151	27	5	43	25
numerically	8	66	7	59	25	157	42	4	38	16
malnutrition	8	42	23	63	22	150	28	15	42	15

Fig. 5.26 Yod distribution in /n/ words

There are two main observations with the /n/ data. First, words where yod is in a word-final syllable have distinctly less coalescence and dropping than all other words, regardless of stress. Second, words with /ju/ in non-final position are pronounced more often with coalescence or dropping in unstressed than in stressed syllables.

Quite a frequent feature is metathesis in *nuclear*, so for instance /njuːklɪə/ is altered to /njuːkɪlə/; and an "n –> j lowering" or "n-deletion" in *malnutrition* to /mæljə'trɪʃən/, which is excluded from the study.

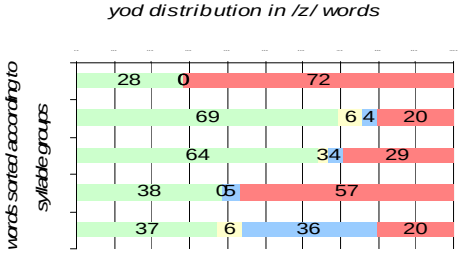
Syllable groups after /z/



z	yod variant					%	yod variant			
	1	2	3	4	total		1	2	3	4
1	18	0	0	46	64		28	0	0	72
2	0	0	0	0	0		0	0	0	0
3	0	0	0	0	0		0	0	0	0
4	259	19	15	92	385		67	5	4	24
5	0	0	0	0	0		0	0	0	0
6	0	0	0	0	0		0	0	0	0
7	66	6	38	65	175		38	3	22	37
8	0	0	0	0	0		0	0	0	0
					624					

Fig. 5.27 Syllable groups after /z/

Apart from *presume* and *presumably*, yod words after /z/ are rather unusual, which is why there are not many present in the study. /z/ in group 1 cannot be coalesced but the higher proportion of yod dropping versus the other groups can be seen, even though *Zeus* is an uncommon word and a proper name. The most common yod variant is dropping in group 1, retention in group 4, and retention closely followed by dropping in group 7.



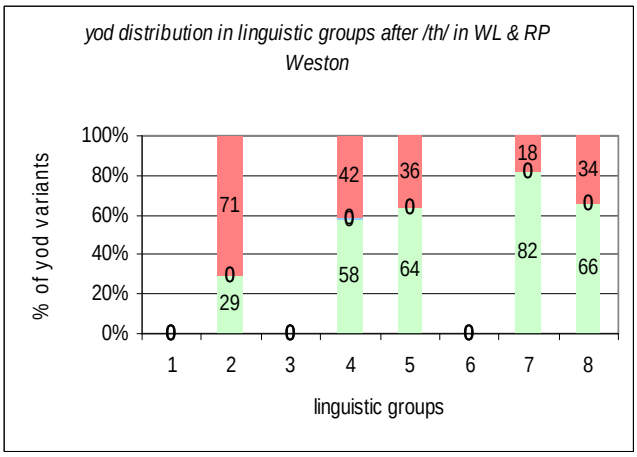
/z/ words	group	1	2	3	4	total	1	2	3	4
Zeus	1	18	0	0	46	64	28	0	0	72
presumably	4	161	15	9	47	232	69	6	4	20
presume	4	98	4	6	45	153	64	3	4	29
resumé	7	31	0	4	46	81	38	0	5	57
Jesuit	7	35	6	34	19	94	37	6	36	20

Fig. 5.28 Yod distribution in /z/ words

Interestingly, the uncommon words *resumé* and *Jesuit* from syllable group 7 have fewer yod retaining variants (1&2) compared to the more common /s/ words in syllable group 7, *issue* and *peninsula*. The result suggests that there is no relationship between yod retention and a low word frequency.

There were also serious reading difficulties, e.g. *resumé* is pronounced as a verb /rɪˈzjuːm/, which cannot be included. *Zeus* is sometimes pronounced the original Greek way /zeːus/ or a combination of the Greek and English pronunciation /ziːəs/ was heard. *Presume* and *presumably* are pronounced with a devoiced /z/ – e.g. /prɪˈsjuːm/ and /prɪˈsjuːməblɪ/ in a few cases, which are excluded.

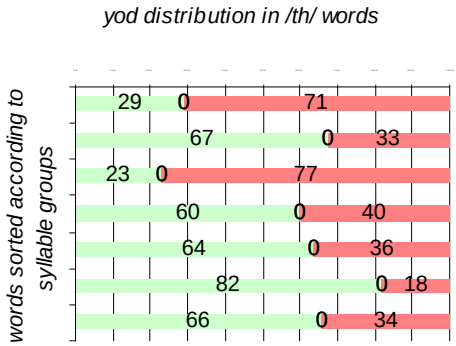
Syllable groups after /θ/



th	yod variant						yod variant			
	1	2	3	4	total	%	1	2	3	4
1	0	0	0	0	0		0	0	0	0
2	15	0	0	37	52		29	0	0	71
3	0	0	0	0	0		0	0	0	0
4	150	0	0	109	259		58	0	0	42
5	99	0	0	56	155		64	0	0	36
6	0	0	0	0	0		0	0	0	0
7	136	0	0	30	166		82	0	0	18
8	94	0	0	49	143		66	0	0	34
					775					

Fig. 5.29 Syllable groups after /θ/

There is no coalescence after /θ/. The most frequent yod variant is yod dropping in group 2 and yod retention in all other groups, i.e. groups 4, 5, 7 and 8. Group 2, however, is represented only by one word *thuya* and apart from a few people who were familiar with the plant, it seemed a rather exotic word to the majority. Therefore we might conclude that the most common yod variant after /θ/ is yod retention in both stressed and unstressed syllables.



/θ/ words	group	1	2	3	4	total	1	2	3	4
thuya	2	15	0	0	37	52	29	0	0	71
enthusiasm	4	101	0	0	49	150	67	0	0	33
anthurium	4	10	0	0	34	44	23	0	0	77
Methuselah	4	39	0	0	26	65	60	0	0	40
enthusiastic	5	99	0	0	56	155	64	0	0	36
Matthew	7	136	0	0	30	166	82	0	0	18
Lithuanian	8	94	0	0	49	143	66	0	0	34

Fig. 4.30 Yod distribution in /θ/ words

/θ/ and /z/ words display more yod dropping (or coalescence in case of /z/ in word non-initial position) rather than yod retention in more unusual words. This can be seen within the group, i.e. *anthurium* has more dropping than *enthusiasm*, as well as in general, e.g. *thuya* (or *Zeus*). There are eighteen cases of th-fronting and three cases of /θ/ realised as /t/ in *enthusiasm* and *enthusiastic* pronounced for instance /əˈnfjuːzɪæzəm/ or /əˈntjuːzɪæzəm/.

As we have seen, there are apparent tendencies of yod distribution across the syllable groups. However, drawing conclusions from the overall results should be done cautiously with regard to the preceding context, simply because the preceding consonants do not have the same characteristics which would enable an equal comparison, because some of them do not coalesce. Another, more equitable possibility for an overall diagram with yod distribution across syllable groups therefore includes only the preceding contexts with a similar characteristic, i.e. we need two overall diagrams: one with all four yod variants for /t, st, d, n/ and /s, z/ in word non-initial positions; and one with only yod retention and dropping for /l, θ/ and /s, z/ in word initial positions.

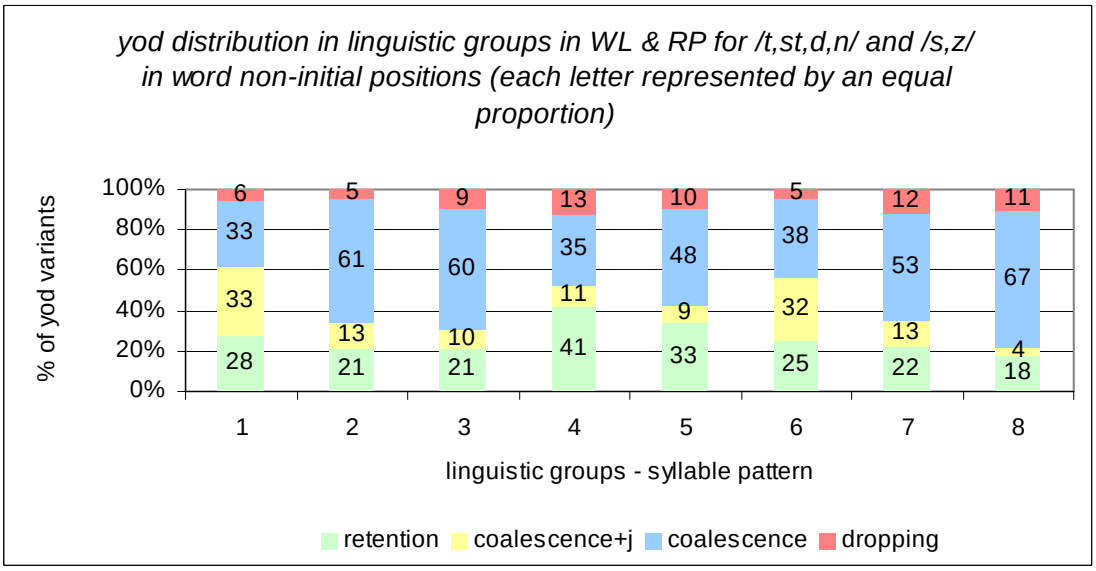


Fig. 5.31 yod distribution in syllable groups in WL &RP in Weston for /t, st, d, n/ and /s, z/ in word non-initial positions

Tab. 5.7 Yod distribution in syllable groups in WL &RP in Weston for /t, st, d, n/ and /s, z/ in word non-initial positions (full matrix cells only)

preceding context	*syllable group*	*yod variant* 1	2	3	4	*total*	*%*	*yod variant* 1	2	3	4	*total*
t,st,d,n	**1**	353	459	446	80	1338		28	33	33	6	100
t,st,d,n	**2**	329	214	1047	77	1667		21	13	61	5	100
t,st,d,n	**3**	282	118	694	127	1221		21	10	60	9	100
t,d,n,s,z	**4**	826	251	867	252	2196		41	11	35	13	100
d,n	**5**	97	27	181	34	339		33	9	48	10	100
t,d,n	**6**	245	365	481	47	1138		25	32	38	5	100
t,d,n,s,z	**7**	404	399	1750	179	2732		22	13	53	12	100
t,st,d,n,s*	**8**	327	85	1243	201	1856		18	4	67	11	100
						12487						

(*without *superfluous*)

The most striking change, compared to the diagram with all the preceding contexts together (Fig. 5.14), is the fall in the amount of yod dropping and a considerable increase of coalescence. The 1 to 3 group pattern becomes clearer: yod retaining variants decrease with the number of syllables in a word, while coalescence and dropping increase with the number of syllables. Coalescence is the most frequent variant in all groups except 4, where it is retention, and group 1, where coalescence and coalescence with yod are equally frequent. It is still almost impossible to distinguish different patterns of yod behaviour between stressed and unstressed syllables.

The second diagram shows all the contexts where only yod retention and dropping occur, i.e. after /l, θ/ and /s, z/ in word initial positions.

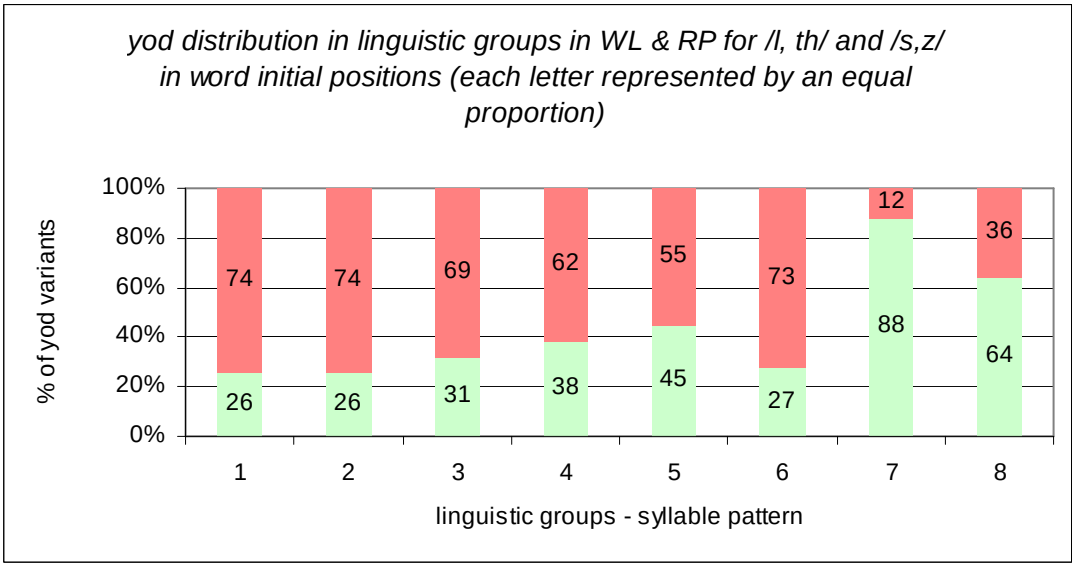


Fig. 5.32 Yod distribution in syllable groups in WL &RP in Weston for /l, θ/ and /s, z/ in word initial positions

Tab. 5.8 Yod distribution in syllable groups in WL &RP for /l, θ/ and /s, z/ in word initial positions

yod distribution in syllable groups in WL &RP in Weston for /l, θ/ and /s, z/ in word initial positions (full matrix cells only)

preceding context	*syllable group*	*yod variant* 1	2	3	4	*total*	*%*	*yod variant* 1	2	3	4	*total*
l,s,z	**1**	355	0	0	1048	1403		26	0	0	74	100
l,θ,s	**2**	233	0	0	778	1011		26	0	0	74	100
l,s	**3**	205	0	0	373	578		31	0	0	69	100
l,θ	**4**	209	0	0	380	590		38	0	0	62	100
θ,s	**5**	202	0	0	355	557		45	0	0	55	100
l	**6**	67	0	0	179	246		27	0	0	73	100
l,θ	**7**	606	0	0	60	666		88	0	0	12	100
l,θ,s*	***8***	452	0	0	156	608		64	0	0	36	100
						5659						

(*only *superfluous*)

The more frequent yod variant of the two is yod dropping in all stressed-syllable groups and group 6, and yod retention in the other unstressed-syllable groups. However, this is only a generalisation because it is mainly the preceding context which determines the choice of the yod variant, especially in groups 4, 5 and *superfluous* in contrast to the rest of group 8.

Two features of the yod variant distribution in both diagrams are analogous:

1) the yod distribution of group 6 is similar to that of group 1, which confirms Bauer's observation
2) more yod dropping (Fig. 5.32)/coalescence and dropping (Fig. 5.31) in group 8 than in group 7, which is in accordance with Jones's §870 and §871.

In conclusion, there are some stress patterns in the yod distribution analysis but yod variants are most accurately described considering the preceding context, which in most cases is the co-deciding factor for the choice of a yod variant.

In general, yod retention is typical of:

- yod words after /l/ in unstressed syllables (without group 6: yod separated from main stress by a syllable)
- most words with yod after /s, z, θ/, where yod occurs in word non-initial position
- most words with yod after /n/, where yod occurs in word-final position.

Coalescence with yod is most common in:

- words with yod after /d, n/ and especially /t/ in stressed syllables and group 6.

Coalescence is typical of:

- yod words after /t, st, d/ except for some words in word-final syllables
- yod words after /n/, where yod occurs in word-non-final position.

Yod dropping is typical of:

- yod words after /l/ in stressed syllables and syllable group 6
- yod words after /s, z, θ/ with yod in initial position.

These observations suggest that any simple implicational scale would be inaccurate.

This chapter will close with a statistical result, showing in which word each yod variant occurs most.

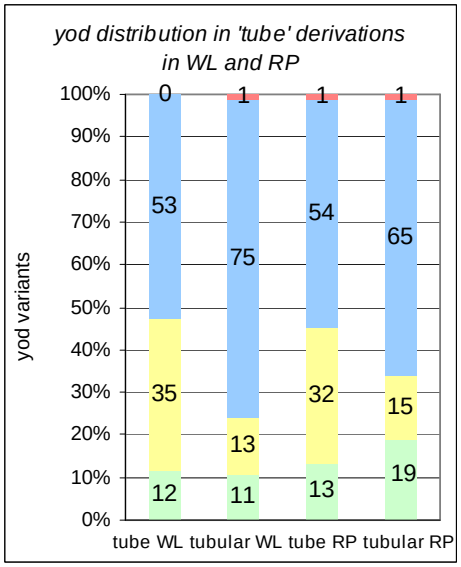
- Yod retention occurs 96% in *value* and *valuable*
- Coalescence with yod occurs 57% in *attitude* (52% in *Neptune*, 50% in *virtue)*
- Coalescence occurs 98% in words with *-tual* and *-dual* ending (*perpetual, punctual, intellectual* and *individual*)
- Yod dropping occurs 99% in *Lucy* (95% in *suicide* and 90% in *absolutely* or *suicidal* if we do not include proper names).

5.4.6 Words with the same morpheme

Do words with the same morpheme differ when the preceding context remains the same? The figures show a comparison of these words with mostly a different syllable group in the two styles where possible.

***tube – tubular* (SS)**

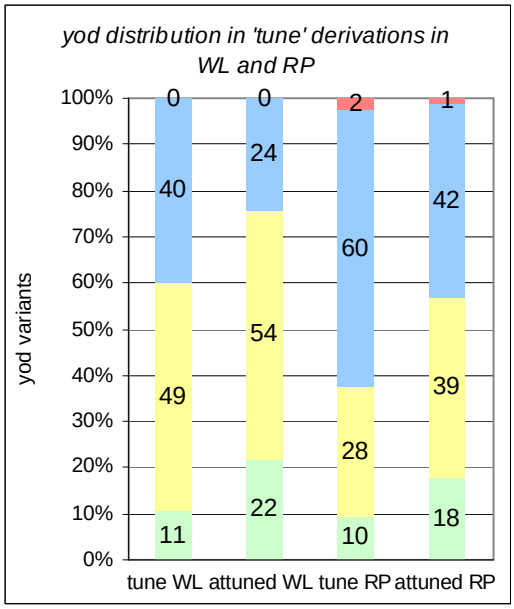
There is more coalescence with yod and less coalescence without yod in *tube* compared to *tubular*. The 1–3 group pattern and the different behaviour of yod in word-final vs. non-final syllable are visible in that there is a higher rate of yod retaining variants in *tube* than in *tubular*. The style variation does not confirm the assumption that there are more yod dropping variants in reading passages than in the word list.



word	style	group	1	2	3	4	total	%	1	2	3	4
tube	WL	1	10	30	45	0	85		12	35	53	0
tubular	WL	3	9	11	62	1	83		11	13	75	1
tube	RP	1	11	27	45	1	84		13	32	54	1
tubular	RP	3	15	12	52	1	80		19	15	65	1

***tune – attuned* (SS)**

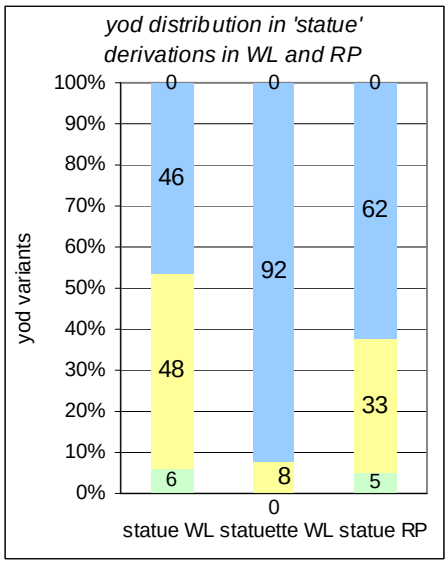
Attuned has a higher percentage of yod retaining variants than *tune* in both styles, which does not confirm the different behaviour of yod in word-final vs. non-final syllable. There are more yod retaining variants in the word list than in reading passages (at the expense of coalescence).



word	style	group	1	2	3	4	total	%	1	2	3	4
tune	WL	1	9	41	33	0	83		11	49	40	0
attuned	WL	4	18	44	20	0	82		22	54	24	0
tune	RP	1	8	23	50	2	83		10	28	60	2
attuned	RP	4	14	31	33	1	79		18	39	42	1

***statue – statuette* (US)**

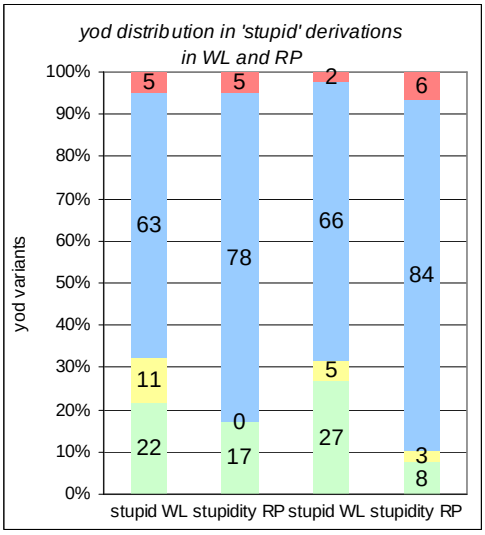
Coalescence is more dominant in *statuette* than in *statue*, by 46% in the same style, which supports the theory of more yod dropping variants in group 8 than in group 7 and the different behaviour of yod in word-final vs. non-final syllable. As for the style, it is only possible to compare *statue*, which shows the typical pattern of more coalescence in the reading passage at the expense of yod retaining variants.



word	style	group	1	2	3	4	total	%	1	2	3	4
statue	WL	7	5	39	38	0	82		6	48	46	0
statuette	WL	8	0	6	72	0	78		0	8	92	0
statue	RP	7	4	27	51	0	82		5	33	62	0

stupid – stupidity **(SS – US)**

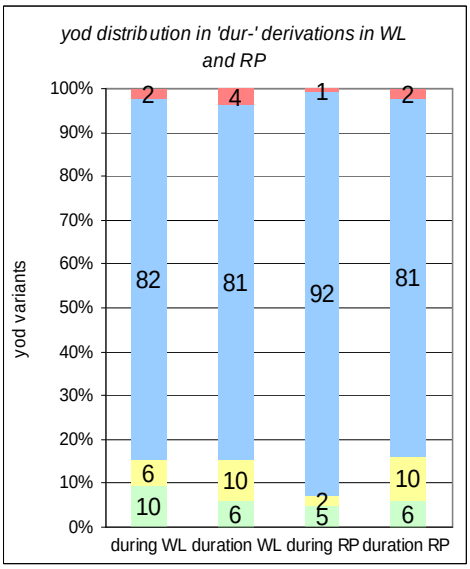
There are predictably fewer yod retaining variants in *stupidity* – an unstressed syllable than in *stupid* – a stressed syllable in both styles. *Stupidity* shows more yod dropping variants in the reading passage than in the word list.



word	*style*	*group*	*1*	*2*	*3*	*4*	*total*	*%*	*1*	*2*	*3*	*4*
stupid	WL	2	19	6	38	6	69		28	9	55	9
stupidity	WL	8	14	3	47	4	68		21	4	69	6
stupid	RP	2	21	3	42	2	68		31	4	62	3
stupidity	RP	8	14	2	38	10	64		22	3	59	16

during – duration **(SS – US)**

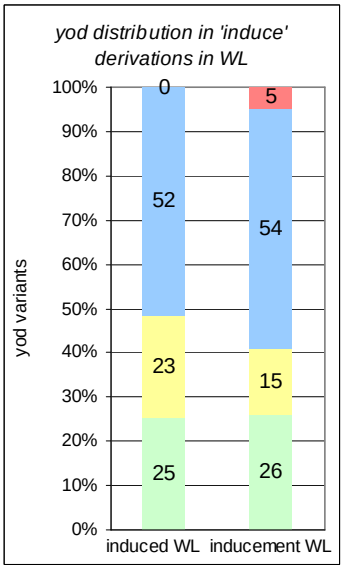
The most frequent variant is coalescence with 81% to 92%. The characteristic difference of yod distribution between the stressed and unstressed syllable is not confirmed. There are more yod dropping variants in *during* in the reading passage than in the word list, but not in *duration*.



word	*style*	*group*	*1*	*2*	*3*	*4*	*total*	*%*	*1*	*2*	*3*	*4*
during	WL	2	8	5	69	2	84		10	6	82	2
duration	WL	8	5	8	68	3	84		6	10	81	4
during	RP	2	8	4	153	1	166		5	2	92	1
duration	RP	8	10	17	136	4	167		6	10	81	2

***induced – inducement* (SS)**

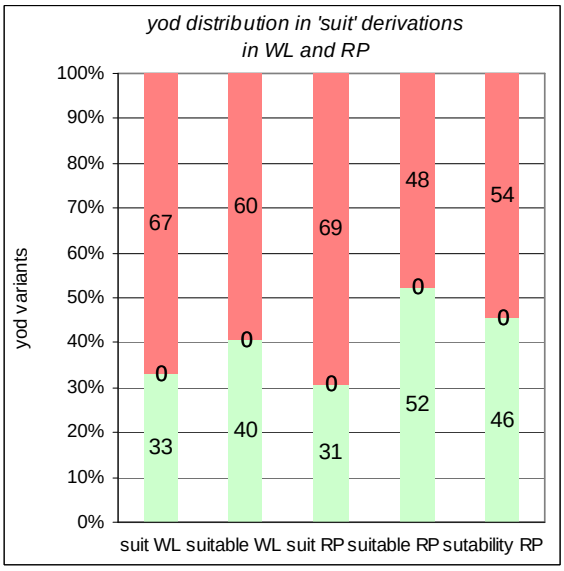
There are 9% more yod retaining variants in *induced* than in *inducement*, by which the characteristic difference of yod distribution between the stressed and unstressed syllable is confirmed. The basic yod distribution is the same, with coalescence as the main yod realisation. Style comparison is not possible.



word	style	group	1	2	3	4	total	%	1	2	3	4
induced	WL	4	21	19	43	0	83		25	23	52	0
inducement	WL	4	21	12	44	4	81		26	15	54	5

***suit – suitable – suitability* (SS)**

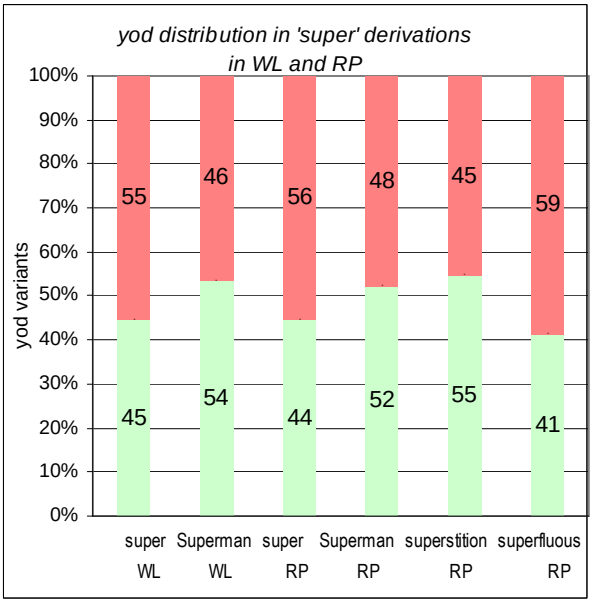
Yod dropping is the most frequent variant in four out of the five words. Yod is dropped more often in *suit*, in a word-final position, as opposed to the other derivatives with yod in a word-non-final position.



word	style	group	1	2	3	4	total	%	1	2	3	4
suit	WL	1	28	0	0	57	85		33	0	0	67
suitable	WL	3	34	0	0	50	84		40	0	0	60
suit	RP	1	129	0	0	290	419		31	0	0	69
suitable	RP	3	44	0	0	40	84		52	0	0	48
suitability	RP	5	36	0	0	43	79		46	0	0	54

super – superman – superstitious – superfluous **(SS – SS – SS – US)**

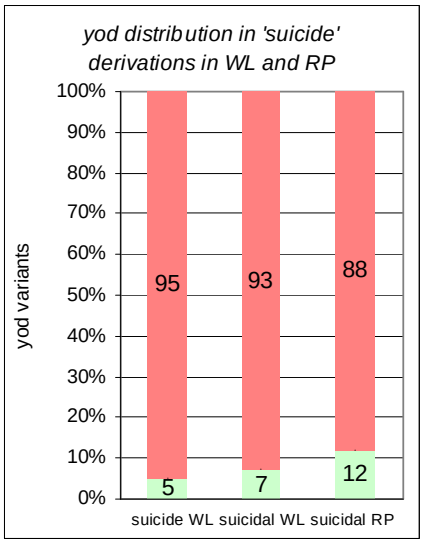
Both retention and dropping account for roughly half of the yod distribution. *Super* has 8–9% more dropping than *Superman*. The difference between stressed and unstressed syllables can be seen: *superfluous* (US) has more dropping than all the other words with /ju/ in stressed syllables. There is hardly any difference in style.



word	*style*	*group*	*1*	*2*	*3*	*4*	*total*	*%*	*1*	*2*	*3*	*4*
super	WL	2	37	0	0	46	83		45	0	0	55
Superman	WL	3	45	0	0	39	84		54	0	0	46
super	RP	2	36	0	0	45	81		44	0	0	56
Superman	RP	3	44	0	0	40	84		52	0	0	48
superstition	RP	5	42	0	0	35	77		55	0	0	45
superfluous	RP	8	31	0	0	44	75		41	0	0	59

suicide – suicidal **(SS)**

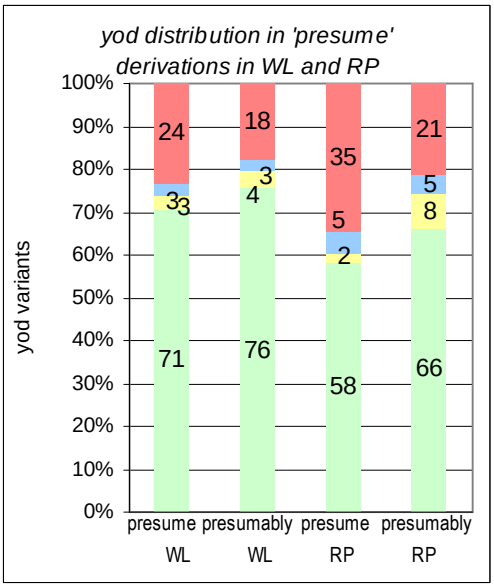
Dropping is clearly the main realisation. There is slightly more dropping in *suicide* than in *suicidal*. The typical behaviour in style is not confirmed.



word	*style*	*group*	*1*	*2*	*3*	*4*	*total*	*%*	*1*	*2*	*3*	*4*
suicide	WL	3	4	0	0	81	85		5	0	0	95
suicidal	WL	5	6	0	0	77	83		7	0	0	93
suicidal	RP	5	19	0	0	144	163		12	0	0	88

***presume – presumably* (SS)**

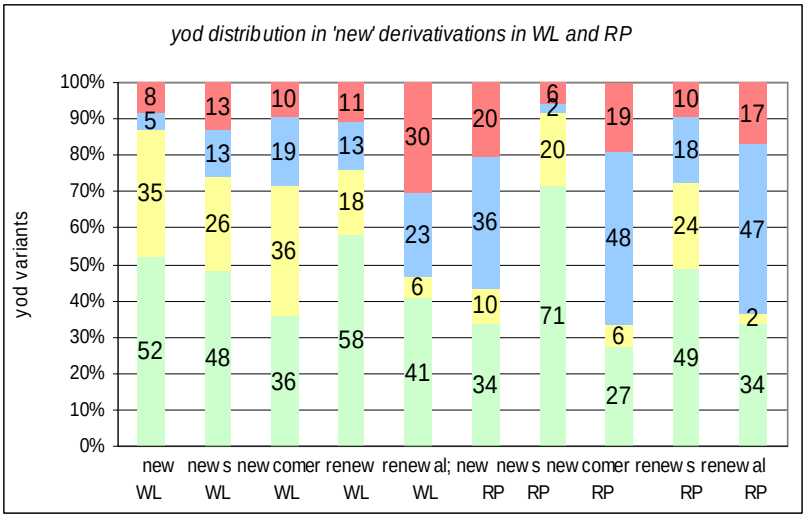
The dominant yod realisation is retention. There is slightly more yod retention in *presumably* than in *presume* in both styles. Since both these words have the main stress on the second syllable, the deciding factor for variation is the word-final position of yod in *presume*, which after /s, z/ and sometimes /l/ seems to be the reason for more dropping rather than retention. There are more yod dropping variants in reading passages than in the word list, as expected.



word	style	group	1	2	3	4	total	%	1	2	3	4
presume	WL	4	51	2	2	17	72		71	3	3	24
presumably	WL	4	59	3	2	14	78		76	4	3	18
presume	RP	4	47	2	4	28	81		58	2	5	35
presumably	RP	4	102	12	7	33	154		66	8	5	21

***new – news – newcomer – renew(s) – renewal* (SS)**

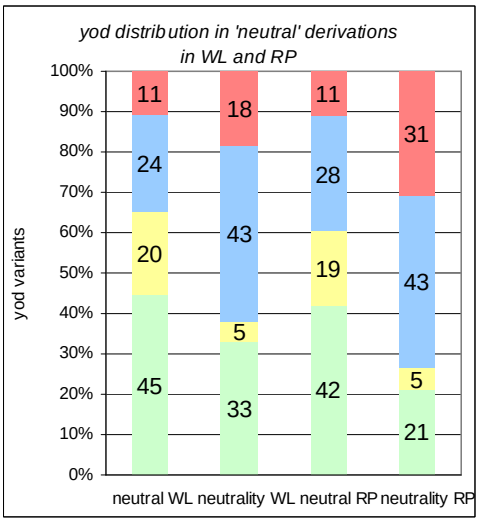
There are different patterns between most /n/ words in the word list compared to reading passages, including changes in yod variant proportions. In the word list, the dominant variant is retention. Coalescence with yod is prominent in n-initial words. In the reading passages, there is more dropping and coalescence overall than in the word list. The most frequent variant in *news* and *renews* is retention, and in *new*, *newcomer* and *renewal* it is coalescence. The 1–3 group pattern in *new* and *newcomer* can be seen in the word list and reading passages. More yod retaining variants in final compared to non-final syllable in *renew* and *renewal* respectively is also noticeable in both the word list and reading passages.



word	style	group	1	2	3	4	total	%	1	2	3	4
new	WL	1	44	29	4	7	84		52	35	5	8
news	WL	1	41	22	11	11	85		48	26	13	13
newcomer	WL	3	30	30	16	8	84		36	36	19	10
renew	WL	4	49	15	11	9	84		58	18	13	11
renewal	WL	4	34	5	19	25	83		41	6	23	30
new	RP	1	28	8	30	17	83		34	10	36	20
news	RP	1	60	17	2	5	84		71	20	2	6
newcomer	RP	3	23	5	40	16	84		27	6	48	19
RENEWS	RP	4	41	20	15	8	84		49	24	18	10
renewal	RP	4	28	2	39	14	83		34	2	47	17

neutral – neutrality **(SS – US)**

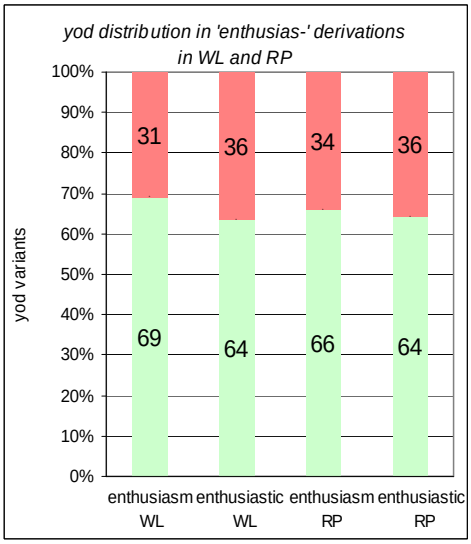
As expected, there is a noticeable difference between stressed and unstressed syllables: about 26–35% more coalescence and dropping in *neutrality* compared to *neutral* (§870, Jones 1972). There is also the expected difference in style – more yod retaining variants in the word list compared to reading passages.



word	style	group	1	2	3	4	total	%	1	2	3	4
neutral	WL	2	37	17	20	9	83		45	20	24	11
neutrality	WL	8	25	4	33	14	76		33	5	43	18
neutral	RP	2	34	15	23	9	81		42	19	28	11
neutrality	RP	8	16	4	32	23	75		21	5	43	31

***enthusiasm – enthusiastic* (SS)**

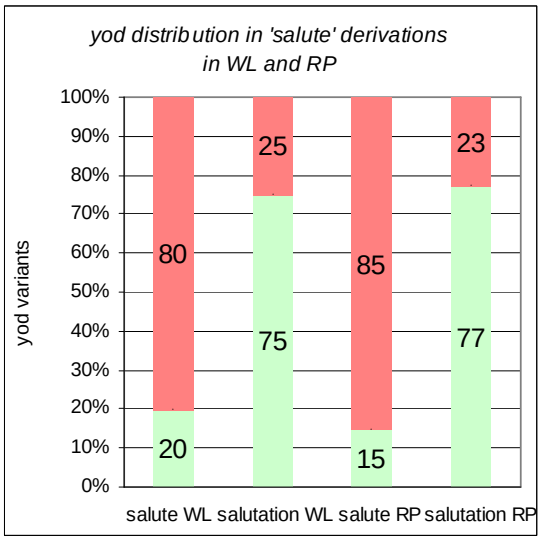
There are only minimal differences between the words or the styles. Yod retention is the major variant.



word	*style*	*group*	*1*	*2*	*3*	*4*	*total*	*%*	*1*	*2*	*3*	*4*
enthusiasm	WL	4	51	0	0	23	74		69	0	0	31
enthusiastic	WL	5	49	0	0	28	77		64	0	0	36
enthusiasm	RP	4	50	0	0	26	76		66	0	0	34
enthusiastic	RP	5	50	0	0	28	78		64	0	0	36

***salute – salutation* (SS – US)**

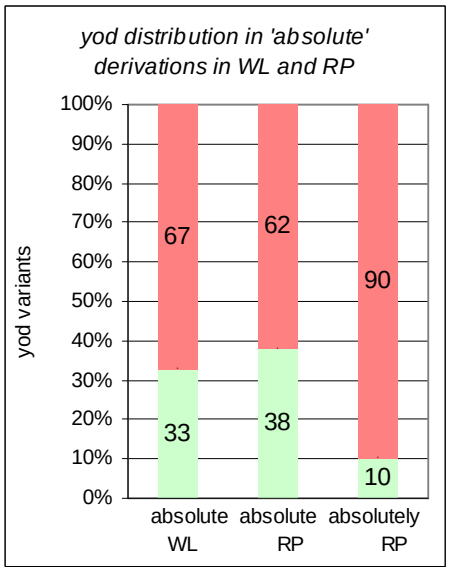
Yod dropping prevails in *salute* whereas retention is more frequent in *salutation*. There is more dropping in *salute* in the reading passage than in the word list, but not in *salutation*.



word	*style*	*group*	*1*	*2*	*3*	*4*	*total*	*%*	*1*	*2*	*3*	*4*
salute	WL	4	16	0	0	65	81		20	0	0	80
salutation	WL	8	56	0	0	19	75		75	0	0	25
salute	RP	4	12	0	0	70	82		15	0	0	85
salutation	RP	8	115	0	0	34	149		77	0	0	23

***absolute – absolutely* (US)**

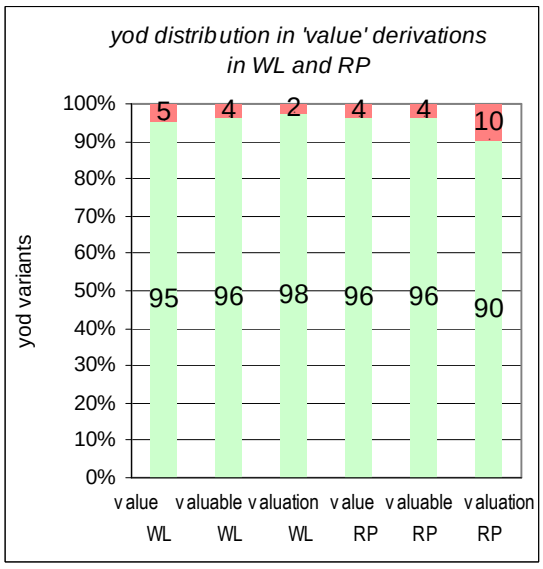
Yod dropping is the main variant, which is more frequent in the word-non-final position in *absolutely*. The expected style difference is not confirmed.



word	style	group	1	2	3	4	total	%	1	2	3	4
absolute	WL	6	27	0	0	56	83		33	0	0	67
absolute	RP	6	32	0	0	52	84		38	0	0	62
absolutely	RP	6	8	0	0	71	79		10	0	0	90

***value – valuable – valuation* (US)**

Retention is the standard and most common yod realisation, but there are several cases of dropping. Jones's §870 and §871 apply in the reading passages – *valuation* has more dropping than *value* or *valuable*. The different yod behaviour in word final vs. non-final syllable is not confirmed.



word	style	group	1	2	3	4	total	%	1	2	3	4
value	WL	7	80	0	0	4	84		95	0	0	5
valuable	WL	7	79	0	0	3	82		96	0	0	4
valuation	WL	8	81	0	0	2	83		98	0	0	2
value	RP	7	81	0	0	3	84		96	0	0	4
valuable	RP	7	79	0	0	3	82		96	0	0	4
valuation	RP	8	75	0	0	8	83		90	0	0	10

To summarise the comparison of words with the same morpheme: in most cases there is no major difference between either the styles or the words. Where there is a difference between the words, it is caused either by the different behaviour of yod in stressed as opposed to unstressed syllables or when it occurs in word-final in contrast to non-final syllables. No consistent recognisable pattern emerges overall: the 1–3 group pattern (based on Jones's §886) occurs in *'new'* and *'tube'* derivatives but not in *'suit'* and *'super'*; more yod retaining variants in stressed in contrast to unstressed syllables (based on Jones's §870) occur in *'neutral', 'stupid'* and *'super'* derivatives but not in *'salute'* and *'during'*; more yod retaining variants in word final in contrast to non-final syllable (based on Jones's §886) occur in *'new', 'absolute', 'tube', 'statue'* and *'induce'* derivatives but not in *'salute', 'value' , 'suit'* and *'presume'*. The last example suggests that more yod retaining variants in word-final in contrast to non-final syllable apply to yod after /n, t/ and /st/ whereas more yod dropping variants in word-final syllables apply after /s/ and /z/; the situation varies after /l/. The assumption that more yod dropping variants occur in reading passages than in the word list is true for most words.

5.4.7 Words from headings vs. words from text

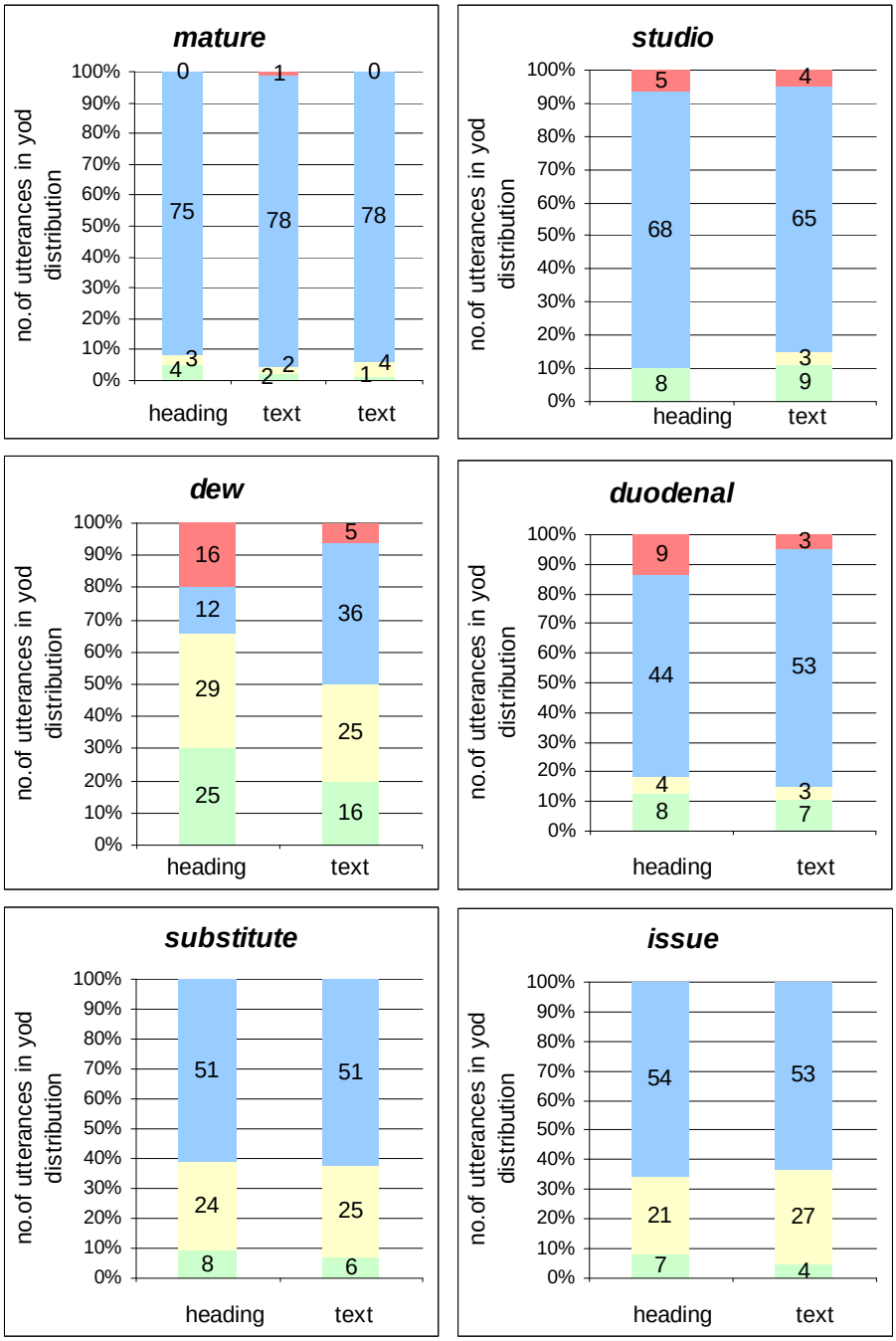
Some of the /ju/ words were deliberately used also in the heading to see if there is any difference in pronunciation of the same word in a heading and within a text passage. There are 10 such words: *mature, studio, dew, duodenal, substitute, issue, suit, Luke, Luton* and *salutation*. There are up to 24 cases of different pronunciation of one word between the heading and the text passages. It is not clear, however, to what extent the differences are caused by the fact that a word is in a heading because when there is a comparison of the same word occurring in a text twice or more often, there is also a noticeable variation, e.g. in *Luke* and *suit*.

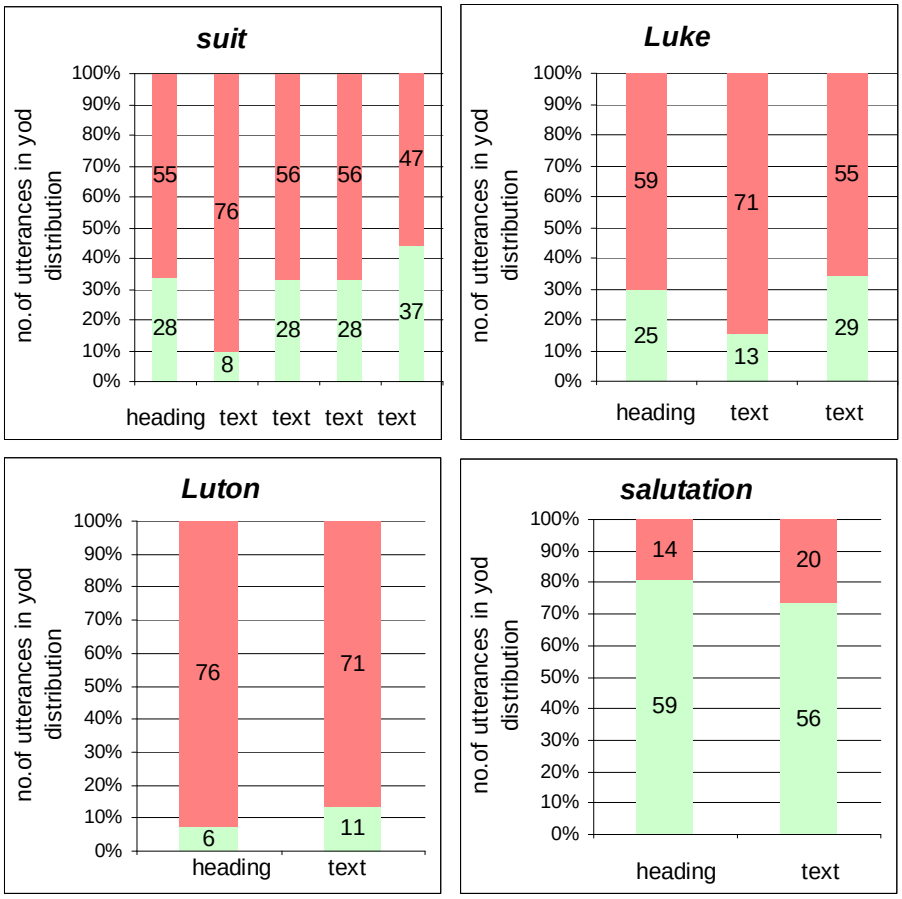
Suit, Luke, Luton and *salutation* can only be pronounced in two ways. There is variation in all of these words, more cases in *suit* (20) and *Luke* (12), fewer in *Luton* (5) and *salutation* (3–6), but no consistent pattern can be seen.

Mature, studio, substitute and *issue* are words with four possible yod realisations which do not vary much. *Duodenal* is pronounced six times more with coalescence, the most frequent yod realisation, in the text than in the heading at the expense of dropping and yod retaining

variants. The greatest variation appears in *dew*, where the proportions of yod distribution change: coalescence, the most frequent realisation in the text, is the least frequent variant in the heading at the expense of the other three yod realisations.

To summarise the situation, we could say that there is no consistent development. The differences between the same word in the heading and reading passages are not more remarkable than the differences between several pronunciations of the same word.





5.4.8 Following linguistic context

No attention was paid to an even distribution of the following context when preparing the matrix, therefore it is only a random sample. Nevertheless, the chi squared test showed independence between preceding and following context.

The distribution of yod variants in stressed syllables varies according to the following context (Fig. 5.33). The distribution of /ju/ realisations is quite even at the end of words: coalescence with yod is closely followed by retention and coalescence. The most frequent yod realisation followed by a semi-vowel or a devoiced consonant is yod dropping. The most common yod variant before a vowel is coalescence. Yod followed by a voiced consonant is most often realised as retention or coalescence.

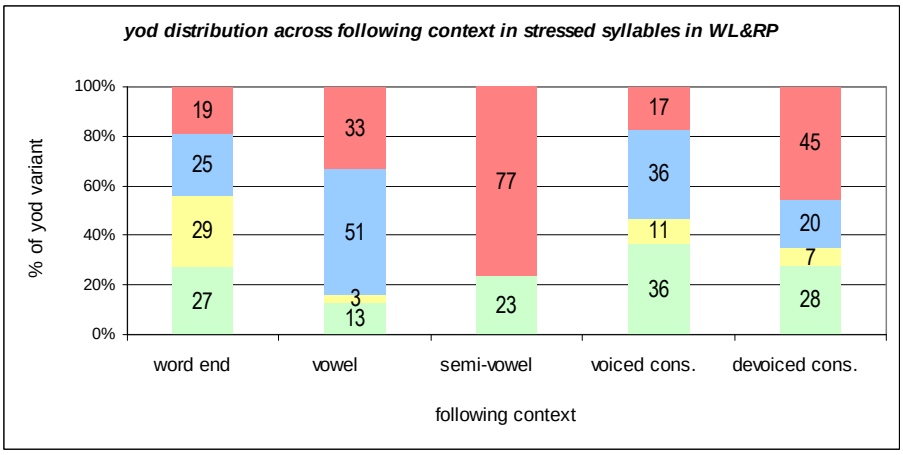


Fig. 5.33 Yod distribution across following context in stressed syllables in WL&RP

Tab. 5.9 Yod distribution across following context in stressed syllables in WL&RP

context	*no. of words with a particular variant*						*%*			
SS	***1***	***2***	***3***	***4***	***total***		***1***	***2***	***3***	***4***
word end	298	314	271	203	1086		27	29	25	19
vowel	198	43	780	511	1532		13	3	51	33
semi-vowel	44	0	0	144	188		23	0	0	77
voiced consonant	1323	386	1304	620	3633		36	11	36	17
devoiced consonant	1228	326	881	2026	4461		28	7	20	45
					10900					

vowel > semi-vowel > devoiced consonant > voiced consonant > word end

yod dropping variants more likely < --- > yod dropping variants less likely

Fig. 5.34 shows that the pattern of yod distribution in unstressed syllables varies. Yod retention is the most common realisation at the end of words, whereas coalescence is the most frequent realisation before the other contexts.

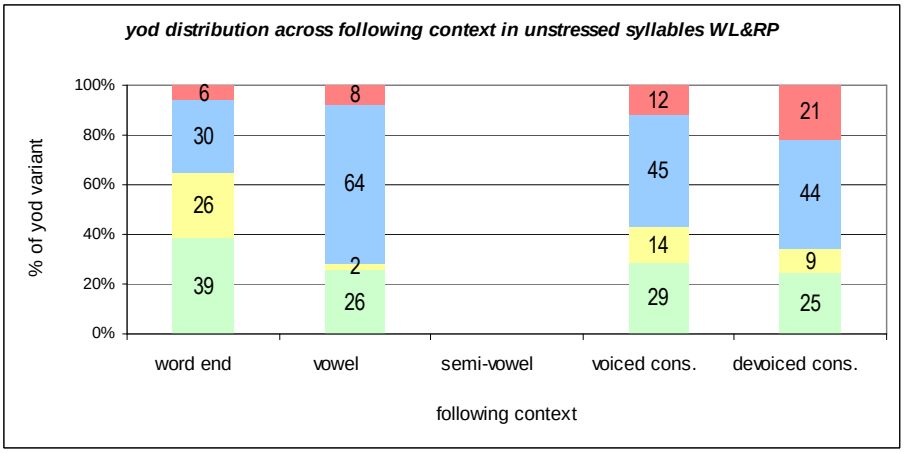


Fig. 5.34 Yod distribution across following context in unstressed syllables in WL&RP

Tab. 5.10 Yod distribution across following context in unstressed syllables in WL&RP

context	*no. of words with a particular variant*						*%*			
US	***1***	***2***	***3***	***4***	***total***		***1***	***2***	***3***	***4***
word end	609	403	463	88	1563		39	26	30	6
vowel	617	56	1539	190	2402		26	2	64	8
semi-vowel	0	0	0	0	0		0	0	0	0
voiced consonant	469	234	744	191	1638		29	14	45	12
devoiced consonant	406	156	728	353	1643		25	9	44	21
					7246					

vowel > devoiced consonant > voiced consonant > word end

yod dropping variants more likely < --- > yod dropping variants less likely

The implicational scales for stressed and unstressed syllables show that the following contexts before which more yod dropping variants (coalescence and dropping) are likely to occur are identical.

5.5 Yod variants across social factors

As described in detail in chapter 3.3, five social factors have been taken into consideration in this study: age, sex, socio-economic class (SOCEC), social network (SOCNET), and the degree of mental urbanisation (MENURB). In the end also education and occupation (parts of SOCEC) were tested separately.

In the first stage of analysis, the method of correlation was used. Ideally the social factor values of all informants are correlated with the informants' pronunciation values. To be able to do so, an index had to be created that would combine the results of the informants' choices. That is the normal procedure in linguistic studies with variables which have two variants or where the variants are a continuum. This might be the case with yod in some instances but definitely not in all linguistic contexts, e.g. there is no coalescence of yod with /l/ and /θ/ at all; and no coalescence of yod with /s/ or /z/ in word-initial position. I believe that coalescence with yod (2) can be the transition stage between yod retention (1) and coalescence without yod (3). But it seems rather unlikely that coalescence (3) is a transition to yod dropping (4). The suggested yod shift could therefore take place in the following two directions:

1) yod retention (1) --> (coalescence with yod) (2) --> coalescence without yod (3)
2) yod retention (1) --> yod dropping (4).

On the other hand, variants (1) to (4) create a phonological continuum in that variants (1) and (2) contain audible yod. Variant (3) according to Bauer's arguments contains yod in the form of a merger with the preceding consonant and variant (4) does not have yod at all.

Nevertheless, the index is the only way to compare a social factor with the variable in general and it does reflect pronunciation variability overall, which is why it is also presented here. It must, however, be viewed with reservations. The index for each informant is created by adding up the values of variants for all words, divided by the number of words and multiplied by 100. This produces an index ranging from 100 to 400, where 100 means 100% yod retention (1) and 400 is 100% dropping (4). The values in between have to be treated with care, because an index of 300 does not necessarily mean 100% coalescence (3) but may be a combination for example of some yod retention and majority of dropping. Nevertheless, it works as a comparison between informants to some extent and a tendency towards yod presence or yod absence can certainly be seen.
One index is created for each style and stress environment: WL SS, WL US, RP SS, RP US. An overall index is a mean of the four indices and is used to give an overview of the whole set of data.
None of the social factors shows a significant correlation with the overall yod index. There are only very slight significant correlations between some social factors and some of the four specific yod indices ($p = 0.05$; critical value for $n = 85$ is 0.215):

- negative correlation between age and WL US index (-0.359)
- positive correlation between age and RP SS index (0.222)
- negative correlation between education and RP US index (-0.320)
- positive correlation between mental urbanisation and RP SS index (0.239).

It should be noted that there are more significant correlations between several of the social factors.

Let us now look in detail at the individual factors across the yod variant choices.

5.5.1 Yod variants across sex

There is no significant correlation between the pronunciation of yod and sex, with the overall index (-0.010). The figure shows hardly any difference between men and women. The greatest gender difference is 3% in RP US, where men's score of retention is slightly higher. In both styles in stressed syllables, women have more retention and less dropping than men.

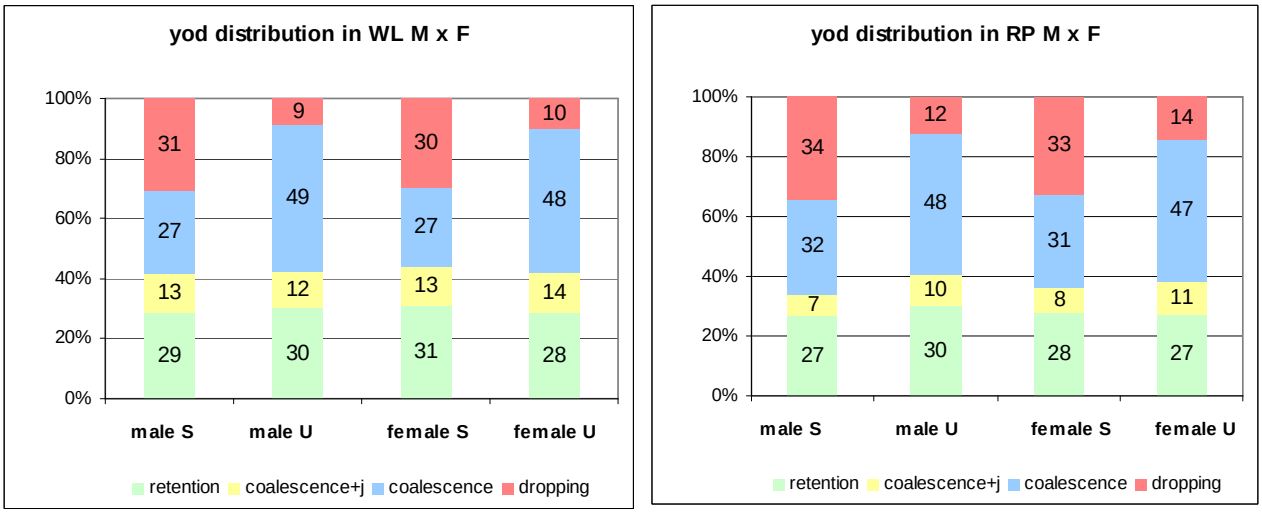


Fig. 5.35 Yod variants across sex

Tab. 5.11 Yod variants across sex

Yod distribution in WL across sex						
	yod					
WL	*variant*	**1**	**2**	**3**	**4**	**total**
s male	*n*	651	284	619	701	2255
	%	29	13	27	31	100
WL						
u male	*n*	511	197	819	150	1677
	%	30	12	49	9	100
WL						
s female	*n*	729	306	638	704	2377
	%	31	13	27	30	100
WL						
u female	*n*	505	245	853	175	1778
	%	28	14	48	10	100

Yod distribution in RP across sex						
	yod					
RP	*variant*	**1**	**2**	**3**	**4**	**total**
s male	*n*	808	221	974	1043	3046
	%	27	7	32	34	100
RP						
u male	*n*	553	193	878	221	1845
	%	30	10	48	12	100
RP						
s female	*n*	902	258	1005	1056	3221
	%	28	8	31	33	100
RP						
u female	*n*	532	214	924	276	1946
	%	27	11	47	14	100

There is, however, a slightly more interesting gender comparison within age groups (5.5.3) that follows after the age group analysis itself (5.5.2).

5.5.2 Yod variants across age

As mentioned above, there is no significant correlation (r = -0.002) between age and the overall yod index. This is illustrated by the scattergram. A higher index indicates more yod dropping or coalescence, a lower index means more yod retention and coalescence with yod.

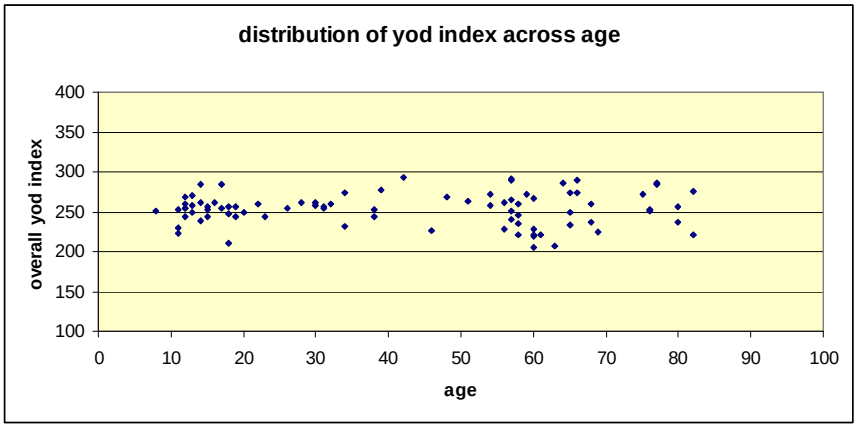


Fig. 5.36 Scattergram of yod index across age

Since we cannot tell from the scattergram based on the yod index which yod variants influence the value of the index, it is also useful to look at the individual yod variants scattered across age.

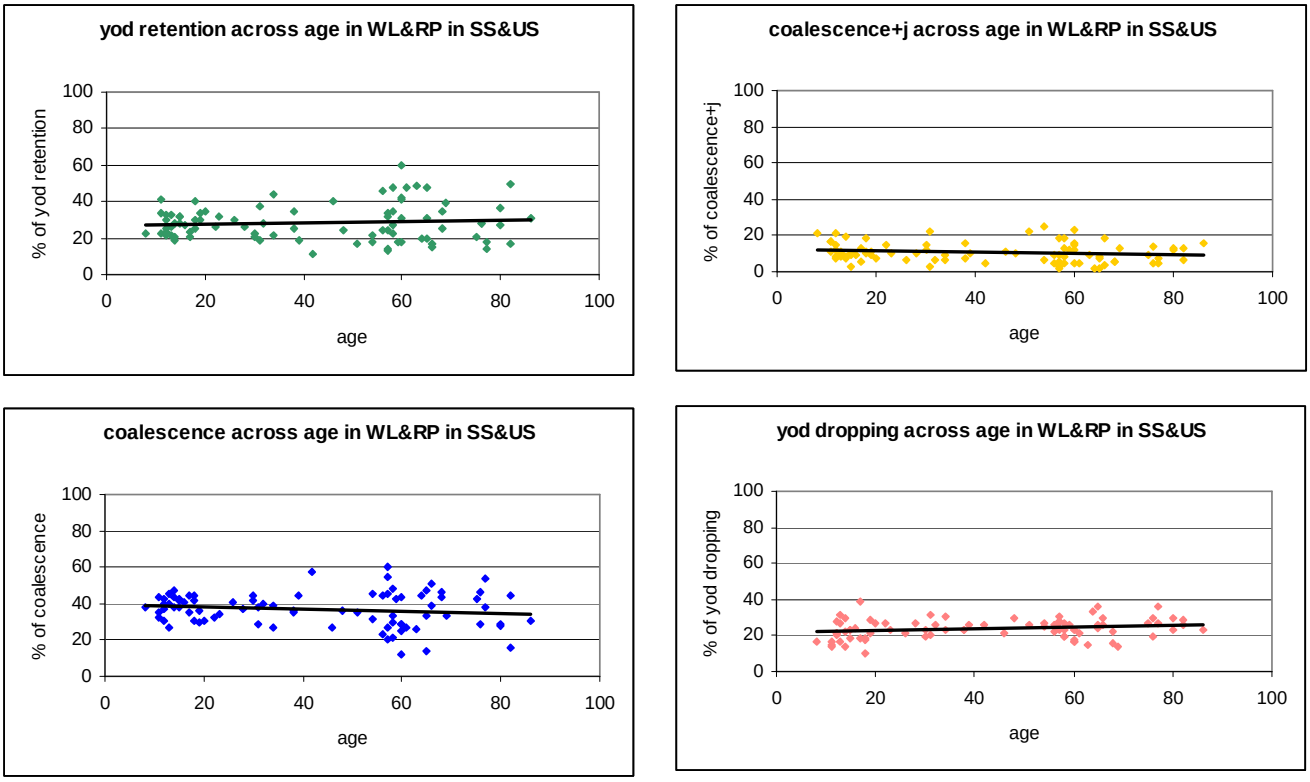
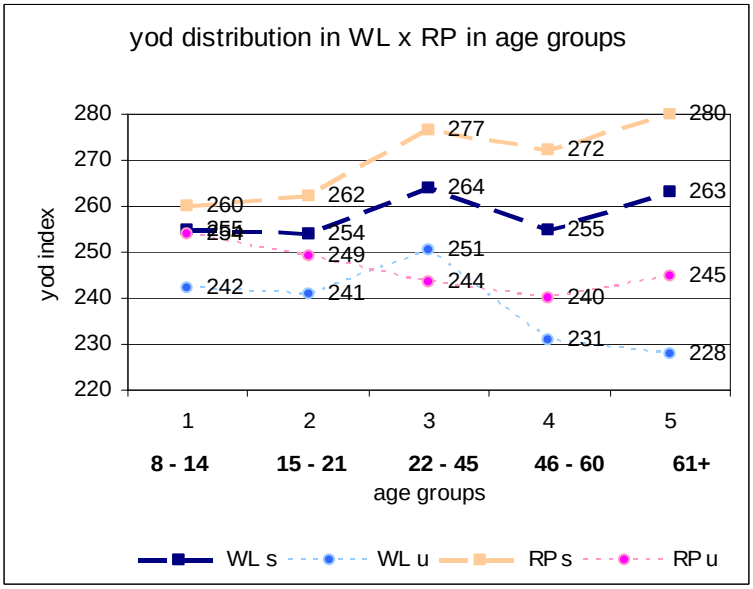


Fig. 5.37 The percentage of individual yod variants from all words scattered across age

Figure 5.37 shows that yod retention and yod dropping slightly increase with age in contrast to coalescence and coalescence with yod, which slightly decrease with age. Statistically, only the yod dropping across age figure is significant (r=0.242).

When the informants are split into the five age groups described earlier, we arrive at the following figure, where style and stress are treated separately.



index age	*WL s*	*WL u*	*RP s*	*RP u*
1	255	242	260	254
2	254	241	262	249
3	264	251	277	244
4	255	231	272	240
5	263	228	280	245

Fig. 5.38 Yod distribution in WLxRP in age groups

In addition to age, figure 5.38 presents style and stress, which so far have not been embedded in social context. It demonstrates what was already suggested by the correlation results: yod dropping variants increase with age in stressed syllables and yod retaining variants decrease with age in unstressed syllables. There are fewer yod dropping variants in unstressed than in stressed syllables in both styles in all age groups. All age groups favour more yod dropping variants in stressed syllables in reading passages than in the word list, as expected.

We can only guess what proportion each yod variant represents in every age group. To be able to make valid statements about what happens with yod, whether the lower index score is really caused by less yod dropping or just by more coalescence instead of retention, we need to take a closer look at the yod distribution in both styles and stresses. Each of the four lines from the above figure will be represented by one diagram.

The following figures and tables show the distribution of yod variants across age groups in the two styles and two stress environments.

Yod distribution across age in stressed syllables

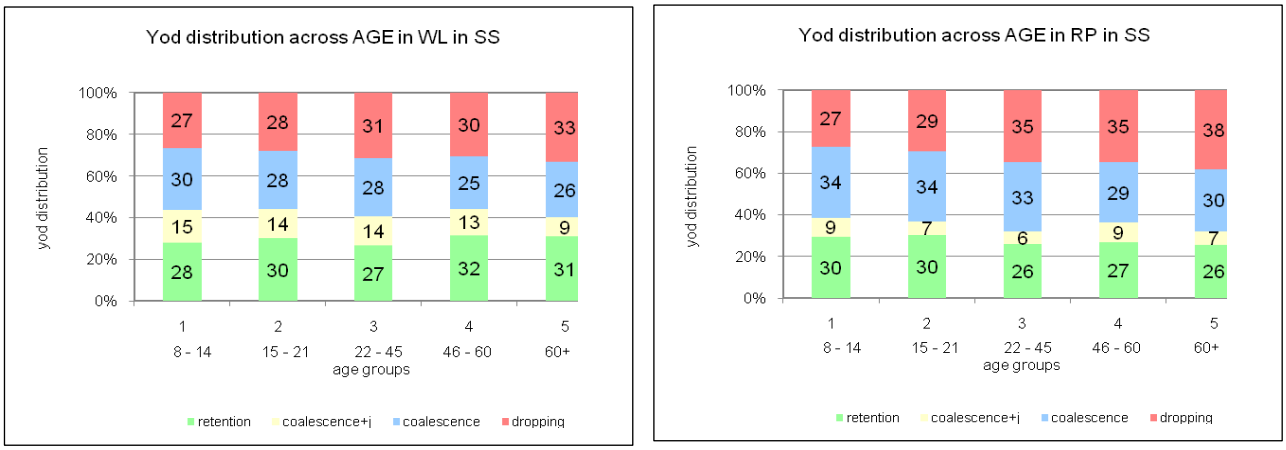


Fig. 5.39 Yod distribution across age in stressed syllables

Tab. 5.12 Yod distribution across age in stressed syllables

WL_s	age	1 (n=15)	2 (n=12)	3 (n=15)	4 (n=22)	5 (n=21)		WL_s	age	1 (n=15)	2 (n=12)	3 (n=15)	4 (n=22)	5 (n=21)
retention	1	221	203	225	385	346		%	1	28	30	27	32	31
coales+j	2	122	93	117	154	104			2	15	14	14	13	9
coalescence	3	235	187	232	308	295			3	30	28	28	25	26
dropping	4	210	188	263	371	373			4	27	28	31	30	33
	total	788	671	837	1218	1118	4632		total	100	100	100	100	100

RP_s	age	1 (n=15)	2 (n=12)	3 (n=15)	4 (n=22)	5 (n=21)		RP_s	age	1 (n=15)	2 (n=12)	3 (n=15)	4 (n=22)	5 (n=21)
retention	1	315	270	295	446	385		%	1	30	30	26	27	26
coales+j	2	96	61	68	154	100			2	9	7	6	9	7
coalescence	3	362	302	381	486	448			3	34	34	33	29	30
dropping	4	292	263	396	575	573			4	27	29	35	35	38
	total	1065	896	1140	1661	1506	6268		total	100	100	100	100	100

Even though the changes within one yod realisation across the age spectrum are small – they move between 2% to 11% – there is a suggestion of a pattern for stressed syllables, especially in the less careful style – reading passages: **yod dropping increases while coalescence and yod retention decrease with age**. The probable division where this seems to happen most is between age groups 2 and 3, i.e. age 15–21 and 22–45, with yod dropping and retention; and between age group 3 and 4, i.e. age 22–45and 46–60, with coalescence.

There are some differences between the styles. There is no clear tendency with yod retention in the word list as the values fluctuate across the age spectrum. However, there is a tendency of decreasing coalescence with yod with age in the word list. On average, there are more yod retaining variants in the word list than in the reading passages in all age groups, as expected. On the whole, retention, coalescence and dropping are relatively evenly distributed in both styles and all age groups. Judging by the less careful style, we can conclude that the most common yod realisation for informants under 21 is coalescence and for informants over 22 it is yod dropping.

Yod distribution across age in unstressed syllables

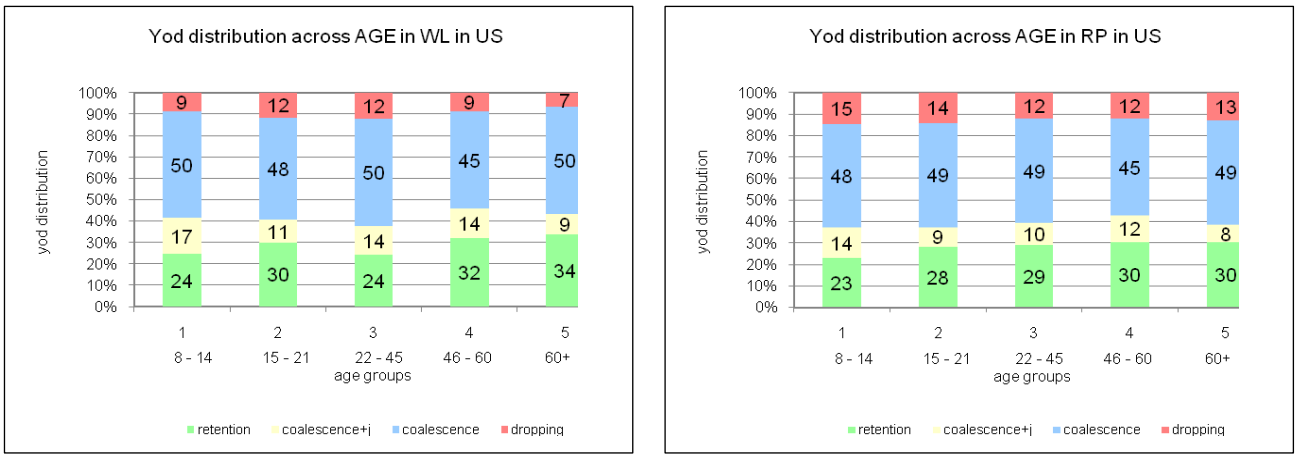


Fig. 5.40 Yod distribution across age in unstressed syllables

Tab. 5.13 Yod distribution across age in unstressed syllables

WL_u	age	1 (n=15)	2 (n=12)	3 (n=15)	4 (n=22)	5 (n=21)		WL_u	age	1 (n=15)	2 (n=12)	3 (n=15)	4 (n=22)	5 (n=21)
retention	1	135	150	154	296	281		%	1	24	30	24	32	34
coales+j	2	94	53	87	129	79			2	17	11	14	14	9
coalescence	3	274	239	320	422	417			3	50	48	50	45	50
dropping	4	49	59	78	83	56			4	9	12	12	9	7
	total	552	501	639	930	833	3455		total	100	100	100	100	100

RP_u	age	1 (n=15)	2 (n=12)	3 (n=15)	4 (n=22)	5 (n=21)		RP_u	age	1 (n=15)	2 (n=12)	3 (n=15)	4 (n=22)	5 (n=21)
retention	1	144	155	201	310	275		%	1	23	28	29	30	30
coales+j	2	87	49	70	125	76			2	14	9	10	12	8
coalescence	3	300	266	337	457	442			3	48	49	49	45	49
dropping	4	92	78	84	125	118			4	15	14	12	12	13
	total	623	548	692	1017	911	3791		total	100	100	100	100	100

The distribution of the yod variants in the word list and the reading passages is very similar in all age groups. Nevertheless, there are, again, more yod retaining variants and less yod dropping in the more careful style (WL) than in the reading passages. The only clear pattern seems to be increasing yod retention with age in reading passages. The most frequent variant in all age groups and both styles is coalescence with 45% to 50%, followed by retention with 23% to 34%. Yod dropping and coalescence with yod vary according to age from 7% to 17%.

To summarise the development of yod variants across age groups: unfortunately, there is no clear pattern in general but **yod dropping increases with age in stressed syllables. In unstressed syllables, the yod realisations are overall fluctuant across the age groups but the main yod realisation in both styles and all age groups is coalescence.**
These observations between age and yod distribution in two styles – the word list and reading passages – and two stress environments – stressed (s) and unstressed syllables (u) – can also be supported statistically. The marked values show significant correlations at a 5% level of significance (p = 0.05, critical value for n = 85 is 0.215):

Tab. 5.14 Correlation between age and yod variants, **5% r=0.215;** 10% r=0.179

	WL s	WL u	RP s	RP u
age - retention	0.048	**0.384**	-0.127	**0.226**
age - coalescence+yod	-0.210	**-0.218**	-0.020	-0.122
age - coalescence	-0.100	-0.080	-0.177	-0.043
age - dropping	**0.258**	**-0.264**	**0.420**	-0.102

5.5.3 Yod distribution across age and sex

So far we have seen no difference between the yod pronunciation of males and females and we have detected some patterns in age groups. Will we find out something new by looking at gender again in the age group division? It seems that there are some differences between males and females after all. There are a minimum of five informants per cell, so the results should be relatively reliable.

The summary figures, one for each yod variant, show the percentage of the yod variant separately in stressed and unstressed syllables but together for the word list and reading passages. The figures compare the use of a particular yod variant between men and women in five age groups.

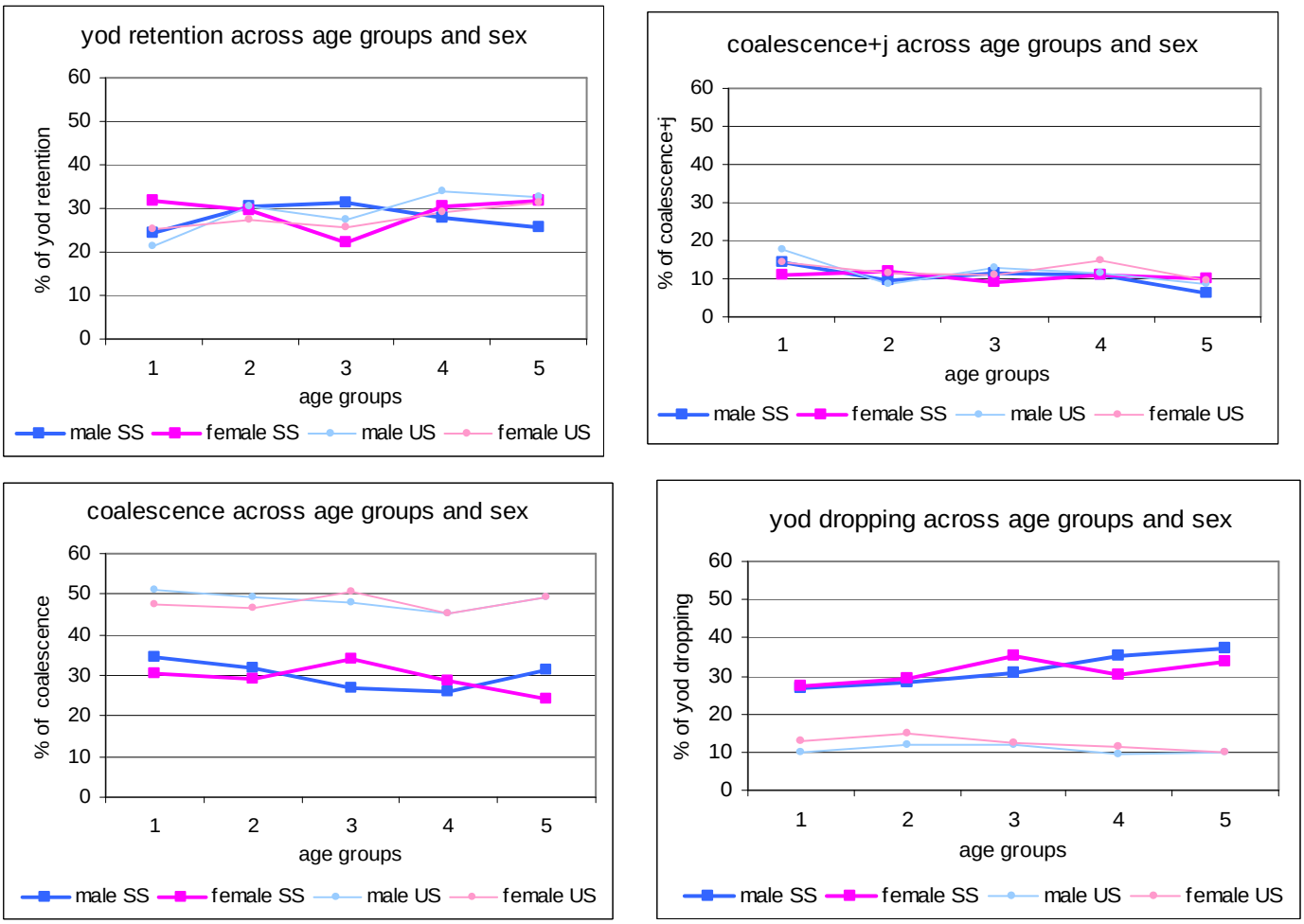


Fig. 5.41 Percentage of individual yod variants across age and sex in stressed and unstressed syllables

Tab. 5.15 Re-arranged data for summary graphs in figure 5.41. The total of 100 % is arrived at by adding up the percentages for each one of the four yod variants, e.g. 25% (retention) + 6% (coalescence+j) + 31% (coalescence) + 37% (dropping) = 100% for male speakers in age group 5 (over 61) in stressed syllables in WL&RP.

			age group	1	2	3	4	5		1	2	3	4	5
retention			no. of males/females	m = 6 f = 9	m = 7 f = 5	m = 7 f = 8	m = 10 f = 12	m = 11 f = 10		m = 6 f = 9	m = 7 f = 5	m = 7 f = 8	m = 10 f = 12	m = 11 f = 10
male	*WL&RP*	*SS*	count	175	279	285	363	358	%	24	31	31	28	25
female	*WL&RP*	*SS*		361	194	235	468	373		32	30	22	31	32
male	*WL&RP*	*US*		92	189	170	303	310		21	30	28	34	32
female	*WL&RP*	*US*		187	116	185	303	246		25	27	26	29	31
coalescence+j														
male	*WL&RP*	*SS*	count	98	81	97	143	86	%	14	9	11	11	6
female	*WL&RP*	*SS*		120	73	88	165	118		11	12	9	11	10
male	*WL&RP*	*US*		75	54	79	102	80		18	9	13	11	8
female	*WL&RP*	*US*		106	48	78	152	75		14	11	11	15	10
coalescence														
male	*WL&RP*	*SS*	count	251	295	251	348	448	%	35	32	27	26	31
female	*WL&RP*	*SS*		346	194	362	446	295		30	29	34	28	24
male	*WL&RP*	*US*		218	306	294	407	472		51	49	48	45	49
female	*WL&RP*	*US*		356	199	363	472	387		48	47	51	45	49
dropping														
male	*WL&RP*	*SS*	count	195	256	285	471	537	%	27	28	31	35	37
female	*WL&RP*	*SS*		307	195	374	475	409		27	29	35	30	34
male	*WL&RP*	*US*		43	73	72	87	96		10	12	12	10	10
female	*WL&RP*	*US*		98	64	90	121	78		13	15	13	11	10

The gender differences are more obvious in stressed syllables. Girls and retired females use more retention than males in the same age groups, while young adult females use less retention than young adult males. By contrast, young adult females use more coalescence than young adult males, and girls and retired females use less coalescence than males in the same age groups. Men over 46 use more yod dropping than women over 46. The gender differences in the other age groups and for other yod realisations are no more than 4%. If yod retention is the unmarked form, the hypothesis that females tend to use more standard forms than males is confirmed with girls under 14 and women over 46. The innovative form, coalescence, does not seem to be a strong favourite for any particular generation in general, although males under 22 and over 61 use it more often than females from the same age groups. Yod dropping, on the other hand, is preferred more by informants over 21 than the younger ones.

The following figures show the distribution of yod variants across age and sex in the word list and reading passages separately.

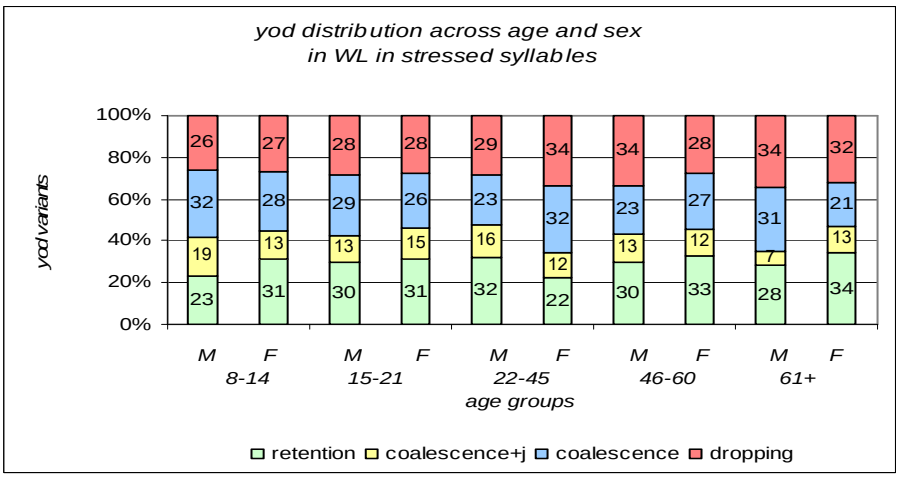


Fig. 5.42 Yod distribution across age and sex in stressed syllables in the word list

Tab. 5.16 Yod distribution across age and sex in stressed syllables in the word list

WL_s male	*age*	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*		%	*age*	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*
retention	*1*	70	116	126	168	171			*1*	23	30	32	30	28
coales+j	*2*	58	50	62	74	40			*2*	19	13	16	13	7
coalescence	*3*	98	114	91	130	186			*3*	32	29	23	23	31
dropping	*4*	79	111	112	190	209			*4*	26	28	29	34	34
	total	305	391	391	562	606	2255		*total*	100	100	100	100	100
WL_s female	*age*	*1 n=9*	*2 n=5*	*3 n=8*	*4 n=12*	*5 n=10*		%	*age*	*1 n=9*	*2 n=5*	*3 n=8*	*4 n=12*	*5 n=10*
retention	*1*	151	87	99	217	175			*1*	31	31	22	33	34
coales+j	*2*	64	43	55	80	64			*2*	13	15	12	12	13
coalescence	*3*	137	73	141	178	109			*3*	28	26	32	27	21
dropping	*4*	131	77	151	181	164			*4*	27	28	34	28	32
	total	483	280	446	656	512	2377		*total*	100	100	100	100	100

In the more careful style (WL) in stressed syllables, all age groups of females except young adult women (22–45) have more yod retention and yod retaining variants in general than males in the same age groups. This partly agrees with Wolfram's (1969), (in) Horvath's (1985) and Trudgill's (1974) findings that females tend to choose the more "correct" form. There are up to 10% differences between males and females in a particular age group. The most uniform age group are informants aged 15–21. In the more careful style (WL) in stressed syllables:

- yod retention is most often used by females over 61
- coalescence with yod is most often used by boys (8–14)
- coalescence is most often used by boys (8–14) and younger adult females (22–45)
- yod dropping is most often used by younger adult females (22–45), older adult males (46–60), and males over 61.

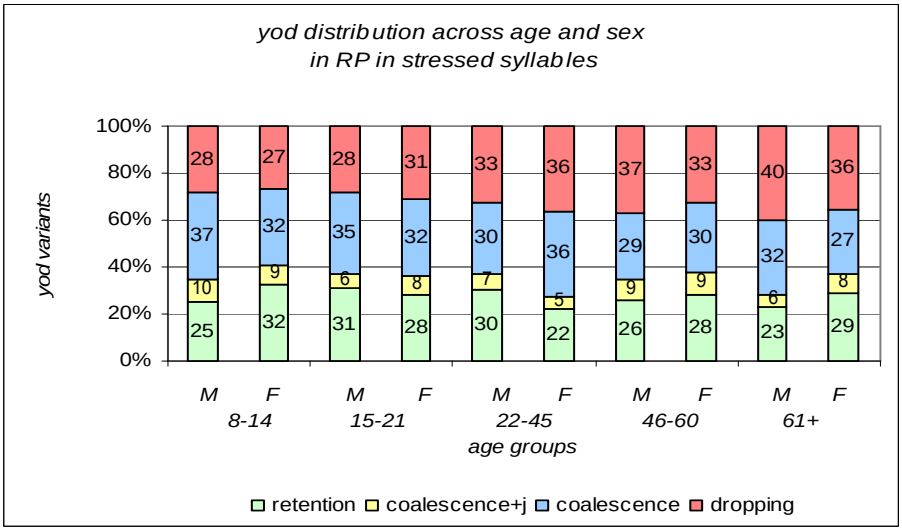


Fig. 5.43 Yod distribution across age and sex in stressed syllables in reading passages

Tab. 5.17 Yod distribution across age and sex in stressed syllables in reading passages

RP_s male														
	age	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*		%	*age*	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*
	1	105	163	159	195	187				25	31	30	26	23
	2	40	31	35	69	46				10	6	7	9	6
	3	153	181	160	218	262				37	35	30	29	32
	4	116	145	173	281	328				28	28	33	37	40
	total	414	520	527	763	823	3047		*total*	100	100	100	100	100
RP_s female														
	age	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*		%	*age*	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*
	1	210	107	136	251	198			*1*	32	28	22	28	29
	2	56	30	33	85	54			*2*	9	8	5	9	8
	3	209	121	221	268	186			*3*	32	32	36	30	27
	4	176	118	223	294	245			*4*	27	31	36	33	36
	total	651	376	613	898	683	3221		*total*	100	100	100	100	100

In the less careful style (RP) in stressed syllables, only girls below 14 and women over 46 have more yod retention and yod retaining variants in general than males in the same age groups. The differences between males and females of the same age groups are smaller in reading passages than in the word list, only up to 8%. The most uniform age group are again informants aged 15–21. In the less careful style (RP) in stressed syllables:

- yod retention is most often used by girls (8–14)
- coalescence with yod is most often used again by boys (8–14)
- coalescence is most often used again by boys (8–14)
- yod dropping is most often used by males over 61.

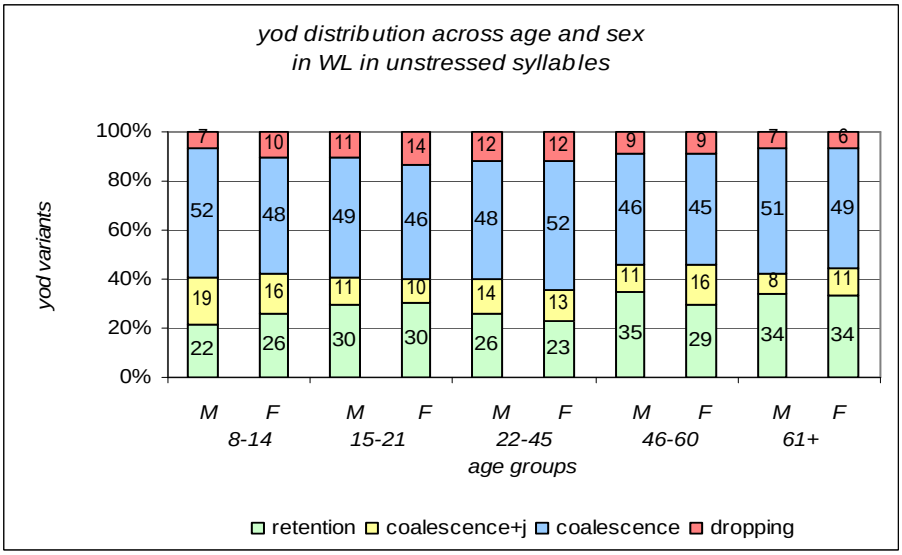


Fig. 5.44 Yod distribution across age and sex in unstressed syllables in the word list

Tab. 5.18 Yod distribution across age and sex in unstressed syllables in the word list

WL_u male															
	age	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*		%	*age*	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*
	1	44	88	76	148	155				22	30	26	35	34
	2	39	32	42	47	37				19	11	14	11	8
	3	107	144	141	194	233				52	49	48	46	51
	4	14	31	36	37	32				7	11	12	9	7
	total	204	295	295	426	457	1677		*total*	100	100	100	100	100
WL_u female															
	age	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*		%	*age*	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*
	1	91	62	78	148	126			*1*	26	30	23	29	34
	2	55	21	45	82	42			*2*	16	10	13	16	11
	3	167	95	179	228	184			*3*	48	46	52	45	49
	4	35	28	42	46	24			*4*	10	14	12	9	6
	total	348	206	344	504	376	1778		*total*	100	100	100	100	100

In the more careful style (WL) in unstressed syllables, the differences between males and females in a particular age group do not exceed 5% except for one case. Females under 21 have more dropping than males under 21 at the expense of coalescence. In the more careful style (WL) in unstressed syllables:

- yod retention is most often used by older adult males (46–60)
- coalescence with yod is most often used by boys (8–14)
- coalescence, the main yod realisation in all age groups and both sexes, is most often used by boys (8–14) and younger adult females (22–45)
- yod dropping is most often used by female adolescents (15–21).

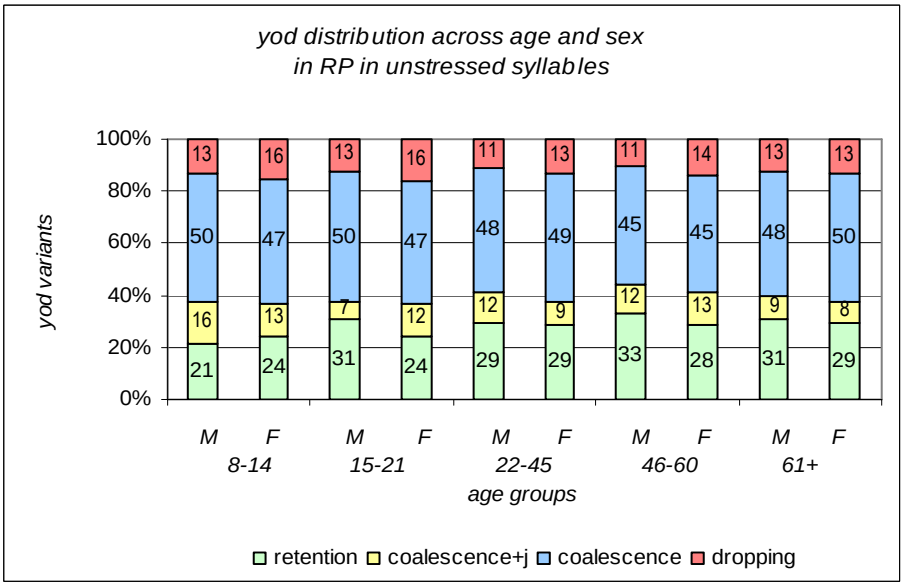


Fig. 5.45 Yod distribution across age and sex in unstressed syllables in reading passages

Tab. 5.19 Yod distribution across age and sex in unstressed syllables in reading passages

RP_u male	*age*	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*		%	*age*	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*
	1	48	101	94	155	155				21	31	29	33	31
	2	36	22	37	55	43				16	7	12	12	9
	3	111	162	153	213	239				50	50	48	45	48
	4	29	42	36	50	64				13	13	11	11	13
	total	224	327	320	473	501	1845		*total*	100	100	100	100	100
RP_u female	*age*	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*		%	*age*	*1 n=6*	*2 n=7*	*3 n=7*	*4 n=10*	*5 n=11*
	1	96	54	107	155	120			*1*	24	24	29	28	29
	2	51	27	33	70	33			*2*	13	12	9	13	8
	3	189	104	184	244	203			*3*	47	47	49	45	50
	4	63	36	48	75	54			*4*	16	16	13	14	13
	total	399	221	372	544	410	1946		*total*	100	100	100	100	100

In the less careful style (RP) in unstressed syllables, the differences between males and females in a particular age group do not exceed 5% except for one case. All females under 61 have more dropping than males. All males over 14 have also more yod retaining variants than females. In the less careful style (RP) in unstressed syllables:

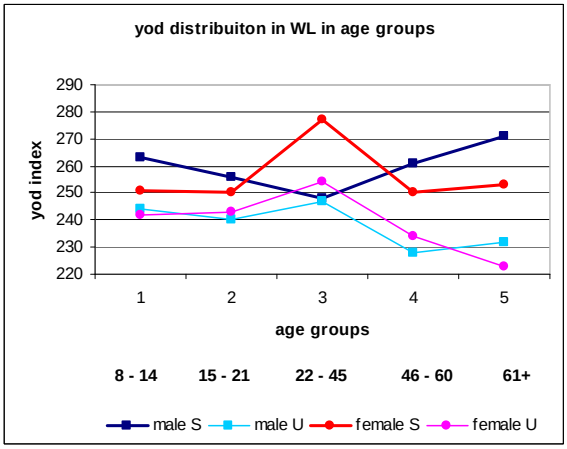
- yod retention is most often used by younger adult males (22–45)
- coalescence with yod is most often used again by boys (8–14)
- coalescence, the main yod realisation in all age groups and both sexes, is most often used by boys (8–14), male adolescents (15–21) and males over 61
- yod dropping is most often used by males below 21.

On the basis of the four figures above it can be said that

1) yod retention occurs least (21%) in unstressed syllables in reading passages with boys (8–14) and most (35%) in unstressed syllables in the word list with older adult males (46–60)
2) coalescence with yod occurs least (5%) in stressed syllables in reading passages with younger adult females (22–45) and most (19%) with boys (8–14) in both stressed and unstressed syllables in the word list
3) coalescence without yod occurs least (21%) in stressed syllables in the word list with men over 61 and most (52%) in unstressed syllables in the word list with girls (8–14) and younger adult females (22–45)
4) yod dropping occurs least (6%) in unstressed syllables in the word list with women over 61 and most (40%) in stressed syllables in reading passages with men over 61.

In conclusion, there are no larger gender differences in yod pronunciation, but a closer analysis has uncovered some degree of variability. Unfortunately, no straightforward gender tendencies indicating a linguistic pattern in general have emerged. This can also be seen in the following summary figures.

Figure 5.46 uses the yod index to summarise the results and development across age groups and sex in stressed and unstressed syllables for the word list and reading passages separately. Here yod is represented by a mean index for each age group. The greatest gender difference is among younger adults (22–45): females have noticeably more yod dropping variants than males in stressed syllables. On the other hand, females over 46 tend to retain yod in stressed syllables more than males over 46. In unstressed syllables, men have mostly more yod retaining variants than women.



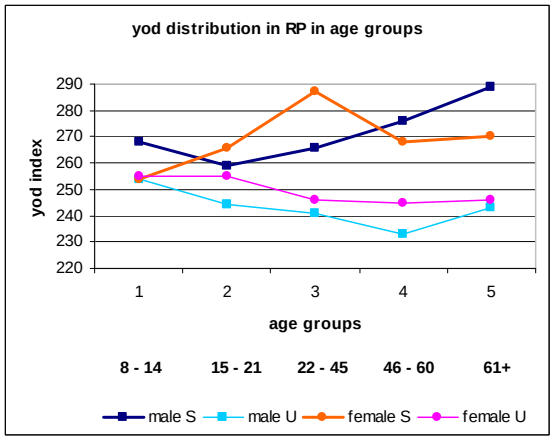


Fig. 5.46 Yod index across age and sex in WL; Yod index across age and sex in RP

Tab. 5.20 Yod index across age and sex in WL Yod index across age and sex in RP

WL	index mean				RP	index mean			
	male	male	female	female		male	male	female	female
age	S	U	S	U	age	S	U	S	U
1	263	244	251	242	1	268	254	254	255
2	256	240	250	243	2	259	244	266	255
3	248	247	277	254	3	266	241	287	246
4	261	228	250	234	4	276	233	268	245
5	271	232	253	223	5	289	243	270	246

The yod index in stressed syllables is always higher than in unstressed.
The yod index is higher in reading passages than in the word list except in unstressed syllables in age group three.

5.5.4 Yod distribution across age and preceding context

Since there are some significant correlations between age and the choice of yod pronunciation, it is worth investigating yod distribution across age groups in individual preceding contexts. A graphic and statistical overview of yod distribution in each preceding context across age can be found in Appendix 5.1. The diagrams are deliberately presented in this way to make it easy to follow how the distribution of yod variants changes across age. The correlation results of individual speakers are not always reflected in the diagrams, in which speakers are grouped.
The following is a summary of the data:

- although there are differences in the use of a particular yod variant between age groups, the order between age groups remains the same for most preceding contexts
- the preference of the most frequent yod variant for a particular context remains the same after /t, st, d, z, n, l/ in stressed syllables and after /t, st, d, l, θ/ in unstressed syllables in all age groups
- the differences in the use of a particular yod variant are most noticeable between informants under 45 (age groups 1, 2 and 3) and over 46 (age groups 4 and 5), e.g. after /d, n, t and st/, or between informants under 21 (age groups 1 and 2) and over 22 (age groups 3, 4 and 5), e.g. after /s and θ/

- yod variation after /t, st/ and /d/ in general is neither great nor gradual across the age groups, but informants under 45 have 9 to 21% less retention at the expense of coalescence in stressed syllables than informants over 46
- yod pronunciation after /s/ changes across age: the most frequent yod variant for informants under 21 in stressed syllables is yod retention, while for informants over 22 it is yod dropping – and the older the informants are, the more dropping they have
- the most frequent yod variant after /z/ in stressed syllables is yod retention in all age groups; however, it gradually decreases from the age of 21 onwards by 22%
- the most frequent variant after /n/ in stressed syllables, yod retention, gradually increases with age from 37% to 52%; retention also increases with age in unstressed syllables, while coalescence and dropping decrease
- even though yod dropping is the most frequent yod variant after /l/ in all age groups, there is a gradual 28% increase in the use of yod dropping with age after /l/ in stressed syllables: the youngest informants omit yod in 65% but the oldest ones in 93% of cases; the variation across age does not exceed 6% in unstressed syllables.

The detailed analysis of yod variants in the individual preceding contexts across age groups has revealed that the frequencies of occurrence of all the phonemes with some of the yod variants are to some extent age-dependent. Therefore if the apparent-time study can represent changes of a variable in time, it can be concluded that there has been a gradual on-going change after /l/ and /s/ in stressed syllables. Changes of more than 20% are noticeable across the age spectrum after /z, θ, st/ in stressed syllables and after /n, θ/ in unstressed syllables.

5.5.5 Yod distribution across mental urbanisation (MENURB)

Mental urbanisation is not statistically significant for the choice of a yod variant overall, but the index shows a significant positive correlation in stressed syllables in the reading passages (r=0.239). It means that informants who have a negative attitude to the urban lifestyle tend to have more yod dropping variants in stressed syllables. In the attitudinal MENURB questionnaire Weston was compared with Bristol, and it is possible that those with a low MENURB score, i.e. a positive attitude to the city, feel attracted by its possibilities and

influenced by its culture in general, which might lead to conscious or subconscious copying of some pronunciation features.

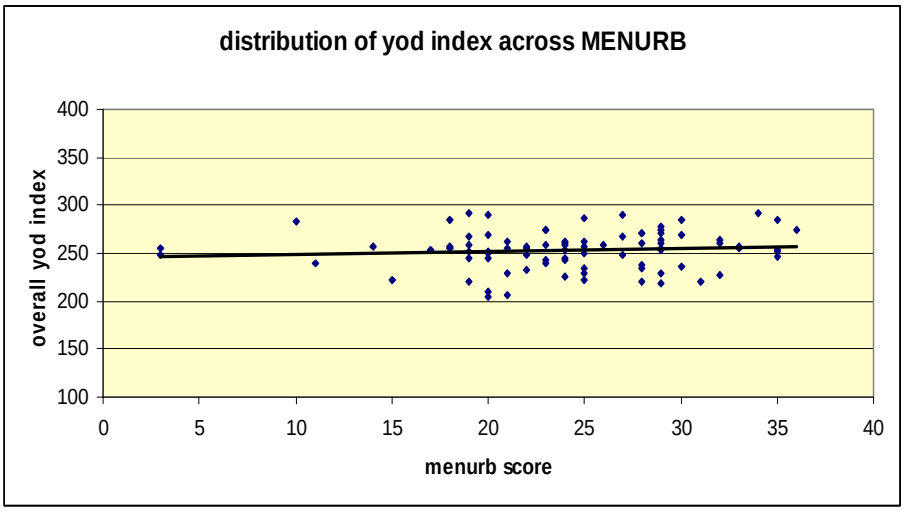


Fig. 5.47 The scattergram of yod index across mental urbanisation

The distribution of informants across the MENURB groups is uneven. Nobody under 21 felt strongly negative about all aspects of the city lifestyle and nobody over 22 felt strongly positive about it. The majority of informants (50) felt negative to neutral about Bristol and modern values. The distribution of individual yod variants across mental urbanisation shows only three statistically significant correlations: informants with a negative attitude to the city lifestyle tend to drop yod in stressed syllables in reading passages, informants with a positive attitude to the city lifestyle tend to drop yod in unstressed syllables in the word list, and informants with a positive attitude to the city lifestyle tend to retain yod in stressed syllables in reading passages.

Tab. 5.21 Correlation between mental urbanisation and yod variants

Significance levels for a sample of 85 informants: **5% r=0.215**; **10% r=0.179**

	WL s	WL u	RP s	RP u
MENURB – retention	-0.093	0.027	**-0.201**	0.106
MENURB – coalescence+yod	-0.024	-0.093	-0.001	-0.017
MENURB – coalescence	0.027	0.148	0.024	-0.034
MENURB – dropping	0.146	**-0.205**	**0.270**	-0.113

The following figures show the actual distribution of yod variants across MENURB groups.

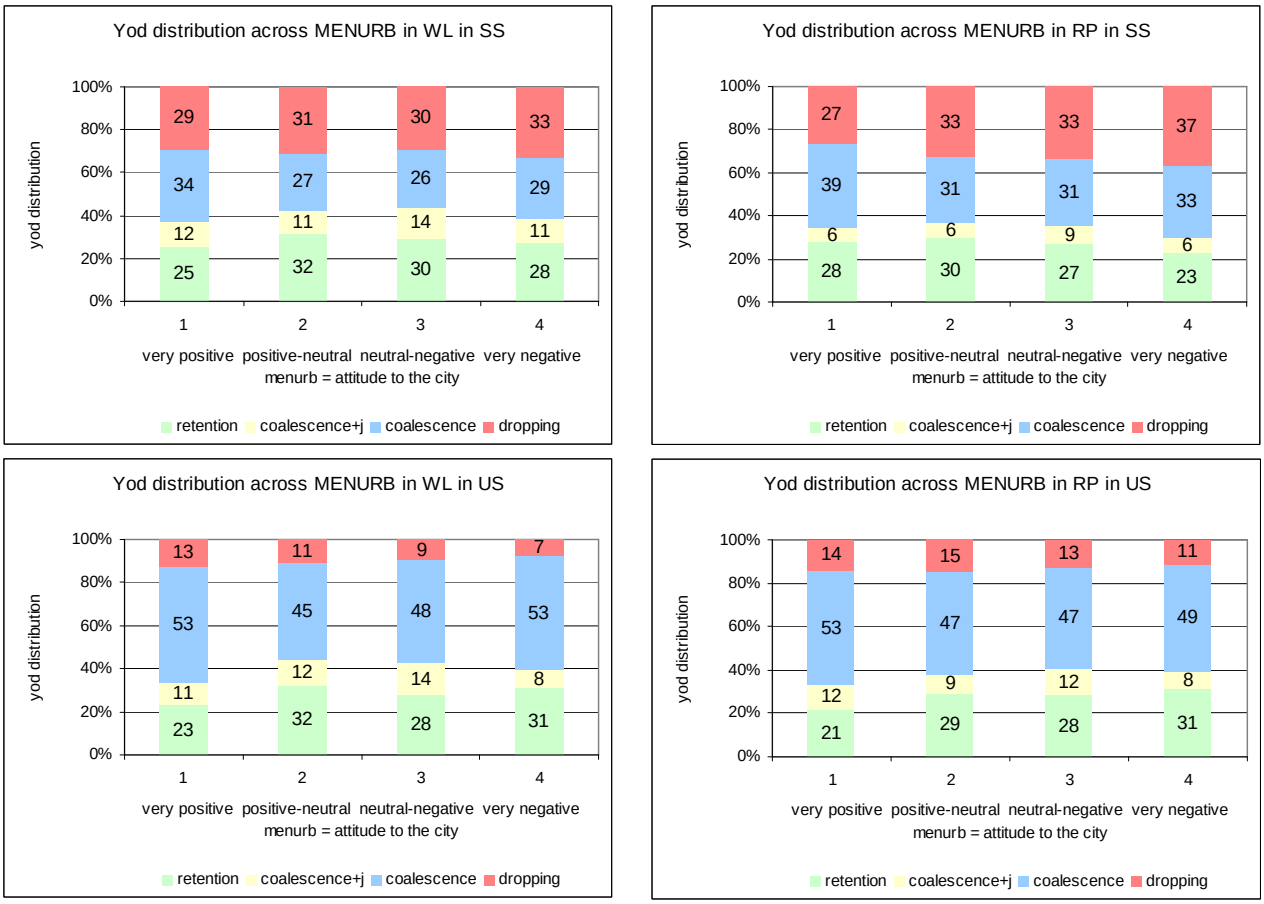


Fig. 5.48 Yod distribution across MENURB

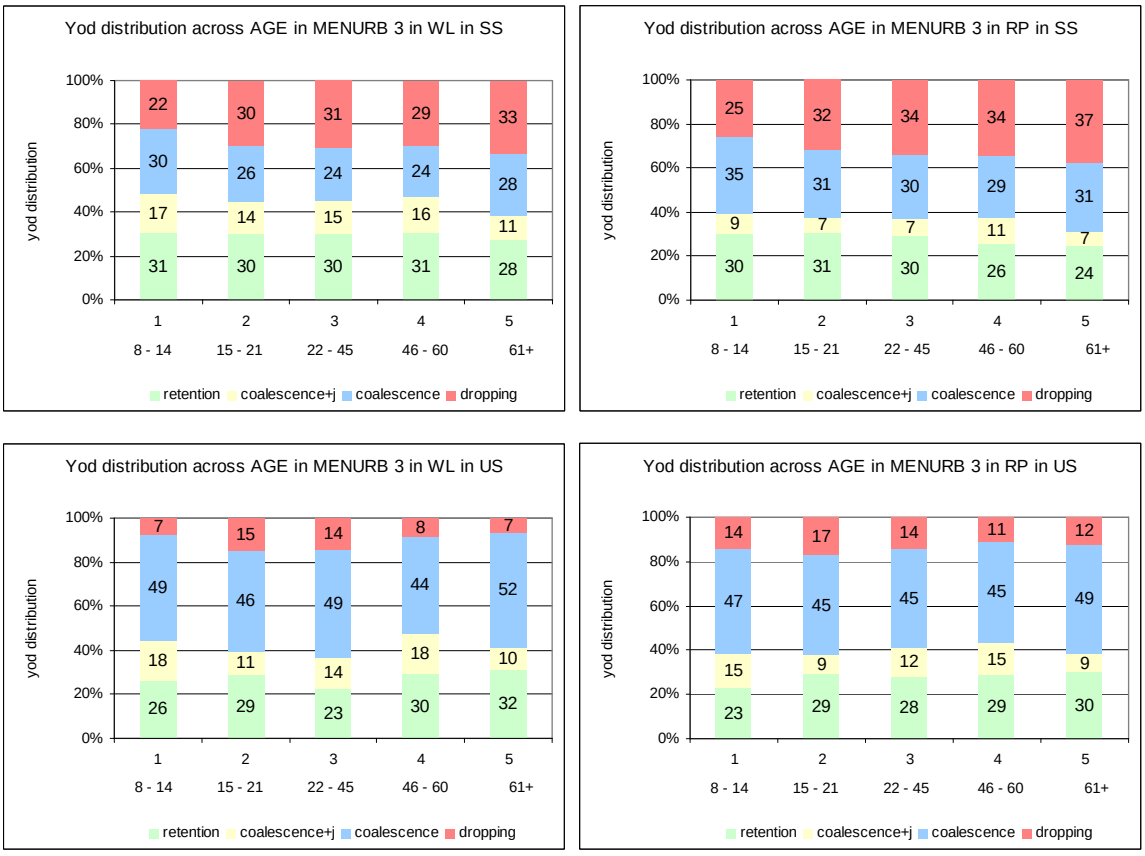
Tab. 5.22 Yod distribution across MENURB

WL_SS	MENURB groups	1 n=3	2 n=20	3 n=50	4 n=12	RP_SS	MENURB groups	1 n=3	2 n=20	3 n=50	4 n=12
1 retention		41	350	804	185			61	442	995	213
2 coalescence+j		19	116	381	74			14	95	312	58
3 coalescence		55	297	712	193			85	456	1132	306
4 dropping		48	336	802	219			58	482	1222	337
variants total		163	1099	2699	671			218	1475	3661	914
WL_US	MENURB groups	1 n=3	2 n=20	3 n=50	4 n=12	RP_US	MENURB groups	1 n=3	2 n=20	3 n=50	4 n=12
1 retention		28	258	571	159			29	258	625	173
2 coalescence+j		13	98	290	41			16	77	271	43
3 coalescence		65	362	976	269			72	415	1042	273
4 dropping		16	85	186	38			19	128	287	63
variants total		122	803	2023	507			136	878	2225	552

The differences in yod distribution between the MENURB groups are not large, the individual realisations vary only up to 10%. Informants tend to omit yod in stressed syllables as their attitude to the city lifestyle becomes more negative: yod dropping increases with mental urbanisation in stressed syllables in both styles. Informants with a positive attitude to the city have 5% to 8% more coalescence in stressed syllables at the expense of retention and dropping than the other groups. These informants also have 6% to 11% more yod dropping variants and therefore 5% to 10% less retention in unstressed syllables than the other groups.

However, it must be remembered that there is a significant positive correlation between age and mental urbanisation. There is no age group represented by all MENURB groups. Therefore it might be wise to look at least at yod distribution across age groups within a group of informants with the same attitude to the city. For this purpose the large MENURB group 3 with fifty informants is ideal.

A brief look at the following tables and figures shows that informants with a neutral to positive attitude to the city have a similar distribution of yod variants as were described for the age groups (Fig. 5.39–40), i.e. no striking pattern in general, only the use of yod dropping shows a rising tendency with age in stressed syllables.



age groups in MENURB 3	WL_SS	1 n=9	2 n=3	3 n=9	4 n=13	5 n=16	RP_SS	1 n=9	2 n=3	3 n=9	4 n=13	5 n=16
1 retention		145	52	153	220	234		192	71	205	253	274
2 coalescence+j		81	24	74	111	91		59	15	47	111	80
3 coalescence		139	44	123	170	236		223	71	205	279	354
4 dropping		105	51	155	209	282		162	73	232	334	421
variants total		*470*	*171*	*505*	*710*	*843*		*636*	*230*	*689*	*977*	*1129*
age groups in MENURB 3	WL_US	1 n=9	2 n=3	3 n=9	4 n=13	5 n=16	RP_US	1 n=9	2 n=3	3 n=9	4 n=13	5 n=16
1 retention		88	37	88	161	197		87	41	120	172	205
2 coalescence+j		60	14	56	99	61		57	12	53	90	59
3 coalescence		164	59	192	238	323		178	64	193	272	335
4 dropping		24	19	54	45	44		53	24	59	67	84
variants total		*336*	*129*	*390*	*543*	*625*		*375*	*141*	*425*	*601*	*683*

Fig. 5.49 Yod distribution across age in MENURB 3

5.5.6 Yod distribution across socio-economic class (SOCEC)

There is no significant correlation between socio-economic class and any index or yod variant. Nevertheless, the correlation table for yod variants and the figures will be included for completeness.

Tab. 5.23 Correlation between mental urbanisation and yod variants

Significance levels for a sample of 85 informants: **5% r=0.215; 10% r=0.179**

	WL s	WL u	RP s	RP u
SOCEC – retention	0.067	0.048	0.069	0.078
SOCEC – coalescence+yod	0.142	0.037	0.094	0.094
SOCEC – coalescence	-0.120	-0.147	-0.098	-0.173
SOCEC – dropping	-0.078	0.128	-0.035	0.086

Upper-middle class shows higher usage of retention and dropping at the expense of coalescence. However, it is not a representative sample because there is only one informant in this group. Lower-working class informants have the lowest number of yod retention and the highest number of yod dropping variants in all contexts in comparison with any other group.

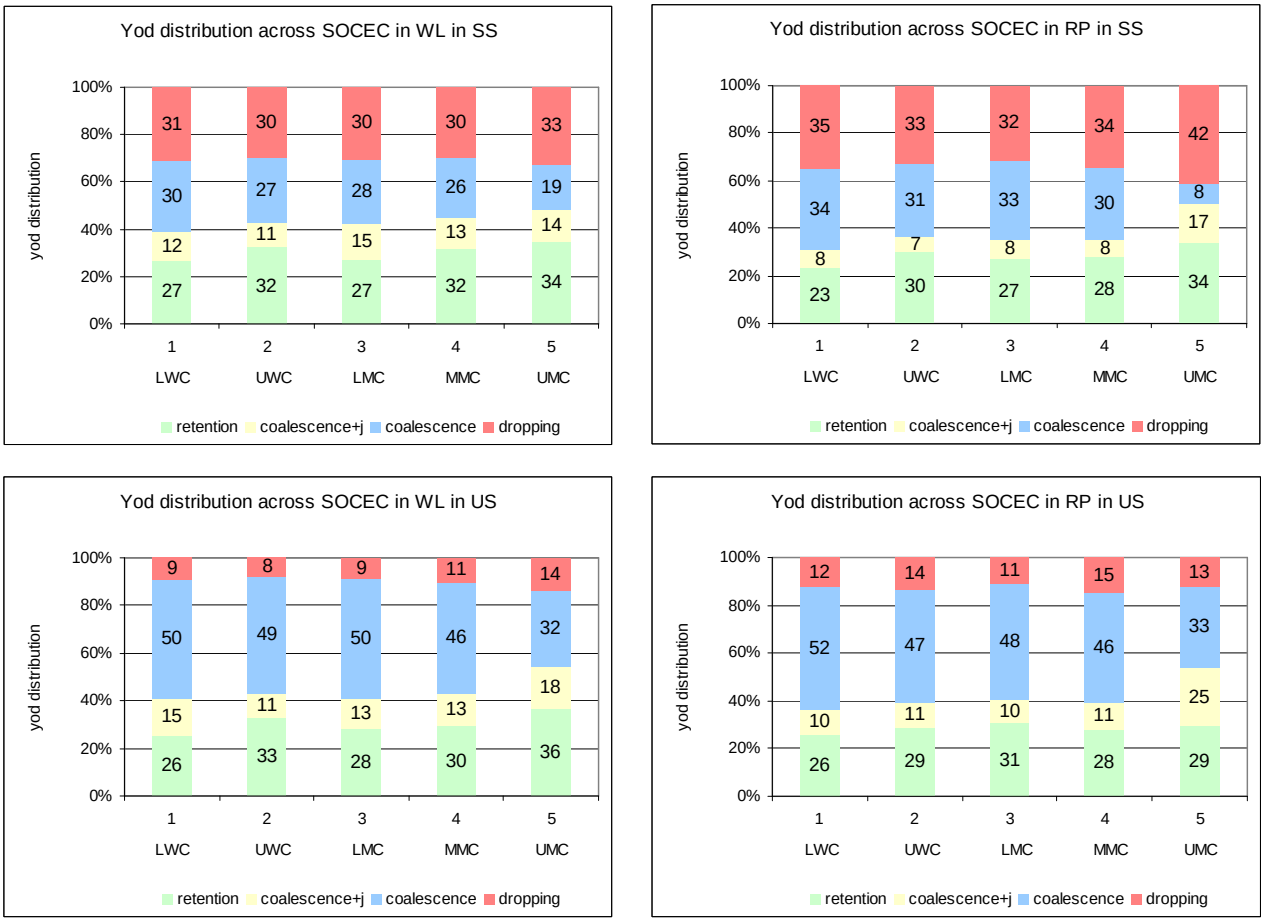


Fig. 5.50 Yod distribution across socio-economic groups

Tab. 5.24 Yod distribution across socio-economic groups

SOCEC groups	WL_SS	1 n=15	2 n=21	3 n=23	4 n=25	5 n=1	RP_SS	1 n=15	2 n=21	3 n=23	4 n=25	5 n=1
1 retention		214	354	355	437	20		254	445	470	516	26
2 coalescence+j		97	116	193	176	8		83	97	145	141	13
3 coalescence		237	296	361	352	11		374	453	580	566	6
4 dropping		250	329	397	410	19		383	488	554	642	32
variants total		798	1095	1306	1375	58		1094	1483	1749	1865	77
SOCEC groups	WL_US	1 n=15	2 n=21	3 n=23	4 n=25	5 n=1	RP_US	1 n=15	2 n=21	3 n=23	4 n=25	5 n=1
1 retention		150	267	280	303	16		168	257	332	314	14
2 coalescence+j		89	86	124	135	8		67	94	105	129	12
3 coalescence		294	397	495	472	14		335	419	517	515	16
4 dropping		55	67	87	110	6		80	123	120	168	6
variants total		588	817	986	1020	44		650	893	1074	1126	48

In general, the pronunciation of yod does not seem to be socially stigmatised among Weston informants.

Since education, which is part of the score of SOCEC in this study, is generally thought to have an influence on pronunciation, it was decided to test it separately in connection with yod pronunciation, too.

5.5.7 Yod distribution across education

There is a significant negative correlation (r = -0.355) between the yod index in unstressed syllables in reading passages and education, which means that informants with higher levels of education have more yod retaining variants in unstressed syllables than informants with lower levels of education. There are also significant correlations between some yod variants and education.

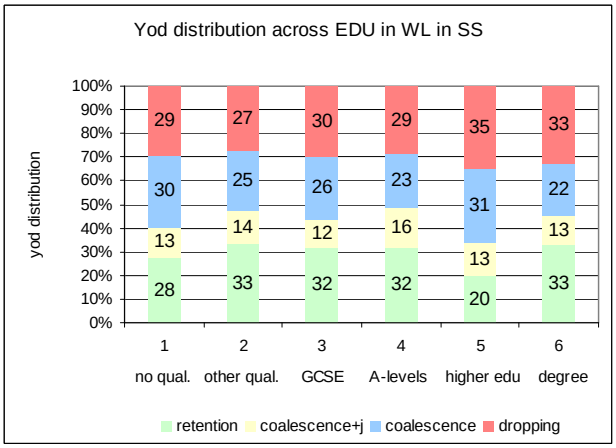
Tab. 5.25 Correlation between education and yod variants

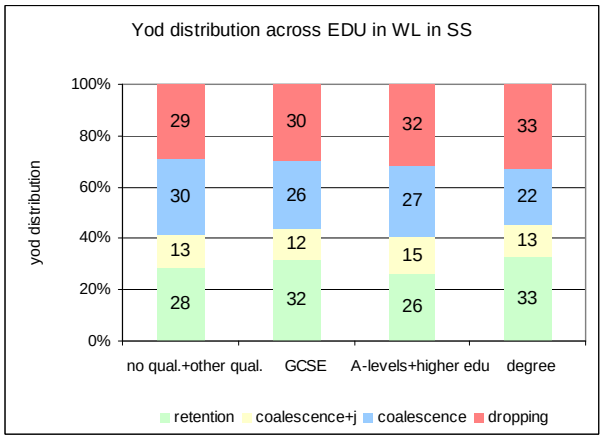
Significance levels for a sample of 85 informants: **5% r=0.215; 10% r=0.179**

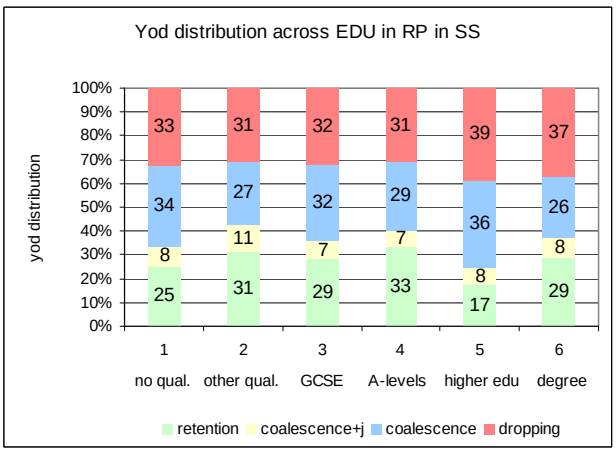
	WL s	WL u	RP s	RP u
education - retention	0.063	**0.249**	0.042	**0.400**
education - coalescence+yod	0.030	-0.108	0.000	0.033
education - coalescence	**-0.214**	**-0.180**	**-0.220**	**-0.286**
education - dropping	0.171	0.040	**0.210**	-0.068

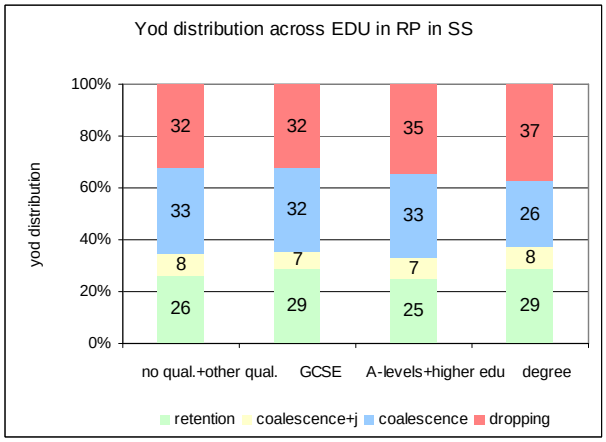
Education seems to be connected with coalescence in all contexts: **the higher the level of education, the lower the use of coalescence. Yod retention increases with the level of education in unstressed syllables and yod dropping increases with the level of education**

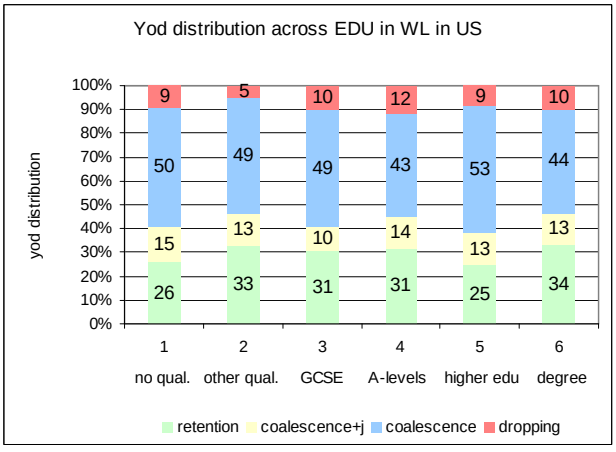
in stressed syllables. This development is not as clearly visible in the graphs as desired. The six levels of education distinguished in this study are again not evenly distributed. This is caused mainly by all the young informants, who naturally have not had a chance to complete their studies. Fortunately it seemed logical to combine some of the six groups and create four fairly balanced categories in this way. Both groupings are presented for illustration. Some of the correlations above are more identifiable in the reduced groups.

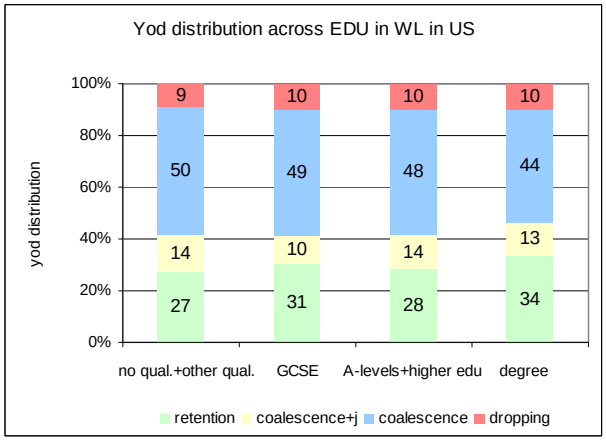












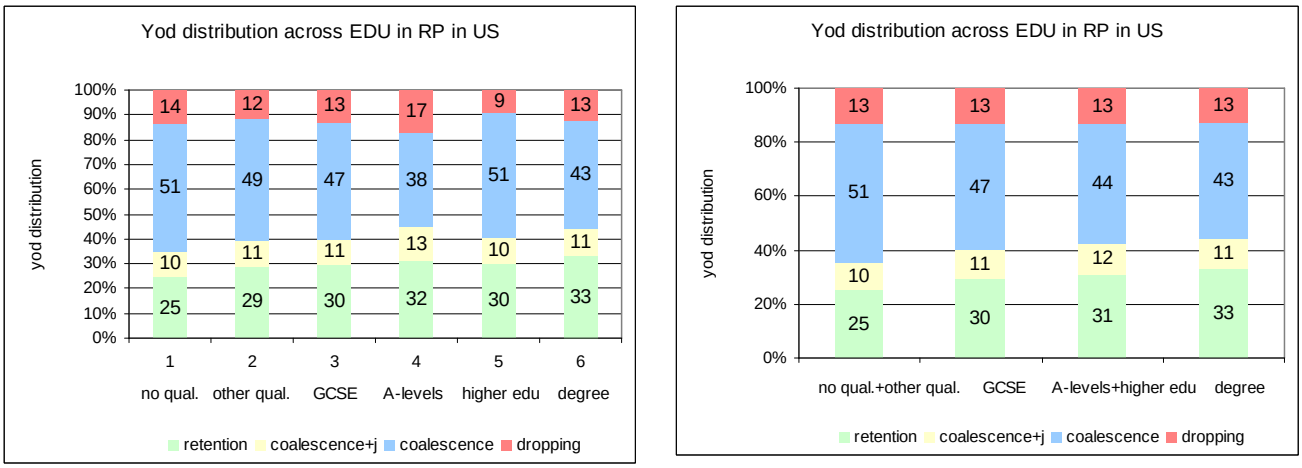


Fig. 5.51 Yod distribution across education (more and less detailed groupings)

Tab. 5.26 Yod distribution across education

education	WL_SS	1 n=30	2 n=5	3 n=23	4 n=7	5 n=6	6 n=14	RP_SS	1 n=30	2 n=5	3 n=23	4 n=7	5 n=6	6 n=14
1 retention		443	92	408	111	68	258		554	116	499	152	79	311
2 coalescence+j		201	38	150	57	45	99		164	41	119	33	35	87
3 coalescence		489	70	338	81	106	173		749	98	558	133	167	274
4 dropping		474	75	380	100	118	258		707	114	563	140	177	398
variants total		1607	275	1276	349	337	788		2174	369	1739	458	458	1070
education	WL_US	1 n=30	2 n=5	3 n=23	4 n=7	5 n=6	6 n=14	RP_US	1 n=30	2 n=5	3 n=23	4 n=7	5 n=6	6 n=14
1 retention		303	68	296	82	64	203		317	64	311	89	85	219
2 coalescence+j		170	27	98	37	34	76		134	24	112	37	28	72
3 coalescence		582	101	473	113	137	266		663	109	494	107	142	287
4 dropping		109	10	94	31	22	59		176	26	137	49	26	83
variants total		1164	206	961	263	257	604		1290	223	1054	282	281	661

The differences of yod variant distribution between the levels of education are not large, but in some cases reach up to 16%. Coalescence is the most frequent realisation in unstressed syllables in all levels of education. **In stressed syllables, informants with no qualification favour coalescence, informants with other qualifications, GCSE and A-levels favour retention, and informants with higher education and a degree favour yod dropping.**

Occupation, a part of SOCEC, was also tested separately but no significant correlation emerged. There is a tendency for coalescence to decrease with more professional occupations.

5.5.8 Yod distribution across social networks (SOCNET)

There is no significant correlation between social networks and yod index or a yod variant. Even though there is very little variety among the SOCNET groups, the correlation table for yod variants and the figures are included for completeness.

Tab. 5.27 Correlation between social networks and yod variants

Significance levels for a sample of 85 informants: 5% r=0.215; 10% r=0.179

	WL s	WL u	RP s	RP u
SOCNET – retention	0,015	-0,085	-0,009	-0,079
SOCNET – coalescence+yod	0,060	0,026	0,038	-0,003
SOCNET – coalescence	0,065	0,072	0,137	0,095
SOCNET – dropping	-0,177	-0,034	-0,178	-0,078

The most frequent yod realisation in stressed syllables seems to be dropping, except for the most sociable informants, who prefer coalescence.

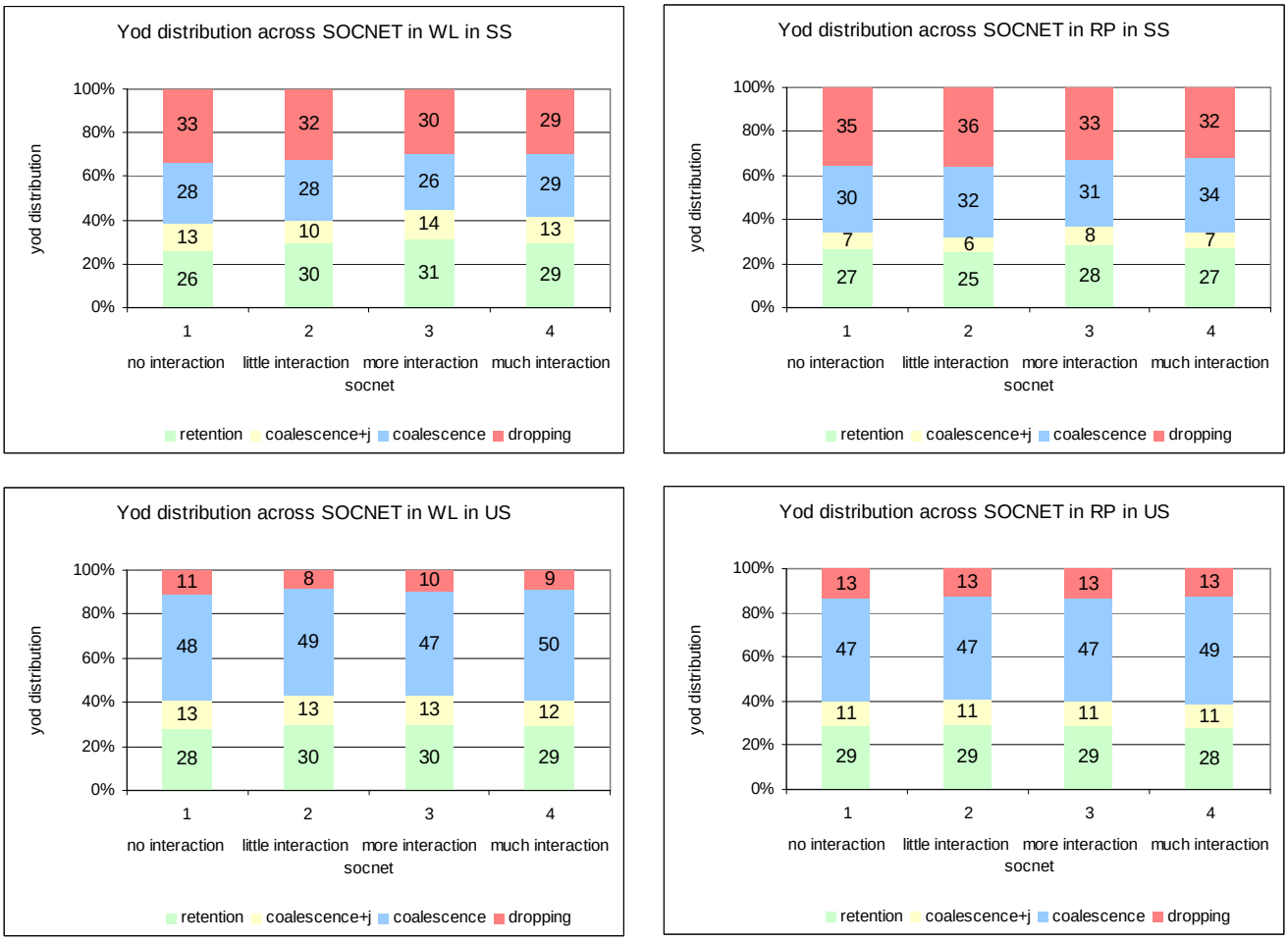


Fig. 5.52 Yod distribution across social networks

Tab. 5.28 Yod distribution across social networks

SOCNET groups	WL_SS	1 n=10	2 n=13	3 n=27	4 n=35	RP_SS	1 n=10	2 n=13	3 n=27	4 n=35
1 retention		146	202	649	383		204	230	801	476
2 coalescence+j		70	69	282	169		57	59	233	130
3 coalescence		157	189	535	376		231	291	864	593
4 dropping		186	220	616	383		270	331	933	565
variants total		559	680	2082	1311		762	911	2831	1764
SOCNET groups	WL_US	1 n=10	2 n=13	3 n=27	4 n=35	RP_US	1 n=10	2 n=13	3 n=27	4 n=35
1 retention		119	153	467	277		135	161	497	292
2 coalescence+j		54	66	210	112		50	63	181	113
3 coalescence		207	250	741	474		220	258	809	515
4 dropping		47	42	150	86		63	69	228	137
variants total		427	511	1568	949		468	551	1715	1057

5.5.9 Statistical testing of social factors across yod variants

Situations where correlation results are not detectable in the diagrams raise the question of what other method could be used to double check the results. Given the naturally ordered character of the social factors, multiple linear regression could be used to determine which factors have a significant part in the choice of the variable taking into consideration all the factors at the same time. The multiple regression methodology is superior to the use of bilateral correlations. There is a realistic possibility that some factors show significant correlation when in fact part of it is accounted for by another co-factor. Multiple linear regression can examine the relationship between a dependent variable “y” which we want to explain and several factors “x”, called regressors that we think might account for the variation in “y”. For a description of the procedure with an example see chapter 4.5.9.

Supposing that yod variants lie in a phonetic continuum, it is enough to look at the regression using the yod index. Here is a comparison of the results of yod index across the four contexts in the first regression:

	regressors	MENURB	SOCNET	education	occupation	SOCEC	sex	age
WL s index	*p-value*	0,490	0,659	0,931	0,635	0,920	0,449	0,911
	beta	0,474	-1,071	-0,255	-3,715	0,270	-5,930	0,027
RP s index	*p-value*	0,112	0,808	0,497	0,192	0,208	0,703	**0,083**
	beta	1,008	0,543	-1,838	-9,437	3,113	-2,748	0,393
WL u index	*p-value*	0,501	0,445	0,986	0,519	0,346	0,985	**0,002**
	beta	0,265	-1,065	-0,029	2,903	-1,453	0,086	-0,454
RP u index	*p-value*	0,877	0,181	**0,001**	0,111	**0,057**	**0,099**	0,532
	beta	-0,055	-1,693	-5,455	-6,502	2,663	6,768	0,079

p < 5%; **p < 10%**

When all the factors are taken into account, there are only very few statistically significant instances for the indices. In stressed syllables, age is the only significant factor and only in the more careful style. One year of age raises the RPss yod index value (100–400) by 0.4, which in 50 years means only an increase by 20 points. In other words, there is hardly any noticeable increase in yod dropping variants with age. In unstressed syllables, age is the only significant factor in the more careful style and the fall in yod dropping variants in WLus is just as unnoticeable as the increase in RPss. In the unstressed syllables of reading passages, there are three significant factors: education, social networks and sex (however, when narrowed down, only education still remains significant). Higher education means fewer yod dropping variants in unstressed syllables in a less careful style. Possibly, more interaction with local people and being female suggests more yod dropping variants are likely to occur in the individual's speech.

If, however, we do not see the yod variants as a phonetic continuum, each variant needs to be treated separately.

Retention

p < 5%

variant	context	*regressors*	MENURB	SOCNET	education	occupation	SOCEC	sex	age
retention	*WL s*	*p-value*	0,334	0,746	0,837	0,668	0,883	0,596	0,558
		beta	-0,055	-1,693	-5,455	-6,502	2,663	6,768	0,079
	RP s	*p-value*	0,110	0,694	0,390	0,309	0,300	0,853	0,264
		beta	-0,423	-0,366	0,968	3,055	-1,064	0,556	-0,105
	WL u	*p-value*	0,933	0,201	0,637	0,610	0,290	0,454	0,357
		beta	0,007	0,359	0,159	0,460	-0,327	-0,675	0,026
	RP u	*p-value*	0,888	0,284	**0,001**	0,335	0,195	0,151	0,926
		beta	-0,020	0,554	2,200	1,605	-0,738	-2,404	0,005

There is only one significant factor for yod retention in only one context: education in unstressed syllables in reading passages. This result agrees with that for the yod index. One unit on the education scale 0–5 raises yod retention in unstressed syllables in a less careful style by 2.2%, so the difference in the use of yod retention in unstressed syllables between an informant with no qualification and an informant with a degree can reach 11%.

Coalescence with yod

p < 10%

variant	context	*regressors*	MENURB	SOCNET	education	occupation	SOCEC	sex	age
coalescence+j	*WL s*	*p-value*	0,371	0,928	0,731	0,716	0,604	0,668	0,189
		beta	0,142	0,051	0,234	-0,658	0,321	0,776	-0,074
	RP s	*p-value*	0,695	0,809	0,589	0,894	0,540	0,372	0,726
		beta	0,041	0,089	-0,240	-0,157	0,248	1,062	0,013
	WL u	*p-value*	0,422	0,892	0,315	**0,077**	0,145	**0,079**	0,218
		beta	-0,048	0,029	-0,260	-1,228	0,345	-1,217	0,026
		p-value				0,211		**0,053**	
		beta				-0,333		-1,305	
	RP u	*p-value*	0,761	0,844	0,643	0,438	0,587	0,756	0,202
		beta	0,041	-0,095	0,269	1,201	-0,287	0,483	-0,062

Sex and possibly occupation are the only significant factors for coalescence with yod. However, the actual changes are hardly noticeable: females have 1.2% less coalescence with yod than males, and informants with occupations high in the SOC 2000 list have up to 6% less coalescence with yod than informants with occupations low in the SOC 2000 list. The relatively small usage of this variant and therefore a smaller sample may mean that the results are not reliable.

Coalescence without yod

p < 5%; p < 10%

variant	context	*regressors*	MENURB	SOCNET	education	occupation	SOCEC	sex	age
coalescence	*WL s*	*p-value*	0,652	0,945	0,340	0,822	0,680	0,705	0,450
		beta	0,111	-0,060	-1,004	0,629	-0,395	-1,059	-0,065
	RP s	*p-value*	0,409	0,620	0,526	0,811	0,619	0,673	0,177
		beta	0,178	0,379	-0,586	0,587	-0,418	-1,042	-0,104
	WL u	*p-value*	0,646	0,858	**0,059**	0,182	**0,095**	0,281	**0,022**
		beta	0,042	-0,058	0,747	1,400	-0,601	1,127	-0,075
		p-value	-	-	**0,062**	-	0,126	-	**0,064**
		beta	-	-	0,671	-	-0,230	-	-0,048
	RP u	*p-value*	0,787	0,948	**0,076**	0,699	0,871	0,775	0,689
		beta	-0,051	0,043	-1,444	-0,832	0,120	-0,617	0,027

There are no significant factors for coalescence in stressed syllables. In unstressed syllables, education is significant in reading passages, and age, education and social networks are significant factors in the word list. Coalescence decreases with age and among more sociable informants, but the actual effect is minimal. One unit on the education scale 0–5 raises coalescence in the word list by 0.7%, but in the reading passages it lowers it by 1.4%, so that an informant with a degree has 7% less coalescence in unstressed syllables in a less careful style than an informant with no qualification.

Yod dropping

p < 5%; p < 10%

variant	context	regressors	MENURB	SOCNET	education	occupation	SOCEC	sex	age
dropping	*WL s*	*p-value*	0,823	0,568	0,476	0,447	0,703	0,418	0,188
		beta	0,037	-0,334	0,506	-1,438	0,246	-1,529	0,077
	RP s	*p-value*	0,202	0,857	0,835	**0,058**	**0,050**	0,752	**0,001**
		beta	0,204	-0,101	-0,142	-3,485	1,234	-0,575	0,196
		p-value	-	-	-	**0,073**	**0,041**	-	**0,000**
		beta	-	-	-	-3,049	1,053	-	0,212
	WL u	*p-value*	0,315	0,280	0,320	0,371	0,866	0,680	0,638
		beta	-0,048	-0,181	-0,202	0,483	-0,031	-0,222	0,008
	RP u	*p-value*	0,844	0,133	**0,082**	0,128	**0,050**	**0,057**	0,496
		beta	-0,022	-0,606	-0,849	-1,977	0,875	2,489	0,027
		p-value	-	-	0,241	-	0,128	**0,054**	-
		beta	-	-	-0,451	-	0,247	2,472	-

No factor is significant for yod dropping in the more careful style. Age, socio-economic class and occupation are significant factors for yod dropping in stressed syllables in the reading passages. For example, a twenty-year-old informant has 10% less yod dropping in stressed syllables than a seventy-year-old informant; an informant at the top of the socio-economic scale (0–15) has 18% more yod dropping in stressed syllables than an informant at the bottom of the socio-economic scale; and informants with occupations high on the SOC 2000 list have up to 17% less yod dropping in stressed syllables than informants with occupations low on the SOC 2000 list. Sex, socio-economic class and education are significant factors in unstressed syllables in the reading passages. For instance, females have 2.5% more yod dropping in unstressed syllables than males; informants with a degree have 4% less dropping in unstressed syllables than informants with no qualification; and informants at the top of the socio-economic scale have 13% more yod dropping in unstressed syllables than informans at the bottom of the socio-economic scale.

The method of multiple regression confirmed some of the correlation results and revealed certain facts about the interdependence of the social factors that could not be detected by the simple correlation. Some factors which were significant in the correlation results are not significant any more when examined by multiple regression, because when all the social factors are considered at the same time there is a chance that a factor significant in the correlation is in fact partly accounted for by another co-factor. We also get the extra piece of information on the exact increase or reduction of a particular variant for each social factor. The correlation between a variant and a factor may be significant but the actual effect of the factor on the variant may hardly be noticeable. The underlying new facts that the multiple regression uncovered are that:

- when individual indices were examined across social factors, sex is significant in unstressed syllables
- mental urbanisation is not significant for retention in stressed syllables
- age is not significant for coalescence with yod in unstressed syllables
- age is significant for coalescence in stressed syllables
- education and mental urbanisation in stressed syllables, and age and mental urbanisation in unstressed syllables are significant for yod dropping in isolation but not when tested together with other factors
- yod dropping seems to increase in stressed and unstressed syllables with socio-economic class, and decrease in unstressed syllables with education.

Overall, when all statistical results are considered, the summary of the impact of social factors on yod pronunciation is as follows:
The yod index decreases with age in unstressed syllables in the more careful style and increases with age in stressed syllables in the less careful style. This can also be seen in figure 5.38. In both cases age group 3 deviates a little from the gradually decreasing and increasing tendencies. The yod index also shows that women have more yod dropping variants in unstressed syllables than men (Fig. 5.41).
Yod retention increases with education in unstressed syllables in the less careful style. Coalescence possibly decreases with education in stressed and unstressed syllables. **Yod dropping increases with age in stressed syllables** and females use yod dropping more than males in unstressed syllables in the less careful style. High mental urbanisation may also increase yod dropping in stressed syllables and decreases it in unstressed syllables, but it is probably influenced by other factors.

5.6 Self-reporting

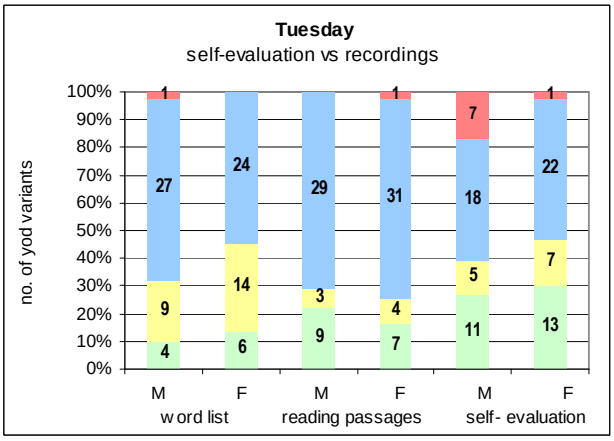
At the end of the interview informants were asked to choose from a list of phonetically spelt words *Tuesday, news, during, presumably, suitable, lucrative, enthusiasm* and *situation* the variant they think they pronounce (Appendix 3.3). The intention was to find out how aware informants are of the yod pronunciation variability in their speech, and to compare the results

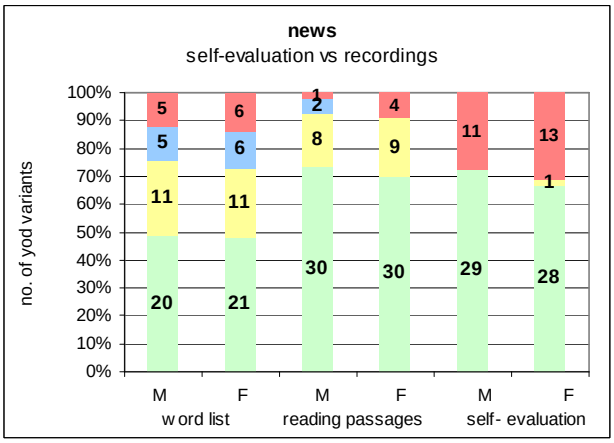
with previous studies, e.g. Chambers (2003:243, reporting Trudgill), which claims that women tend to over-report their behaviour. This means that women think they use more standard variants than they actually do, whereas men tend to under-report their behaviour, they think they use more non-standard variants when in fact they do not. The standard variant here is yod retention, even when yod dropping or coalescence are accepted variants in Received Pronunciation (*suitable, lucrative, situation*).

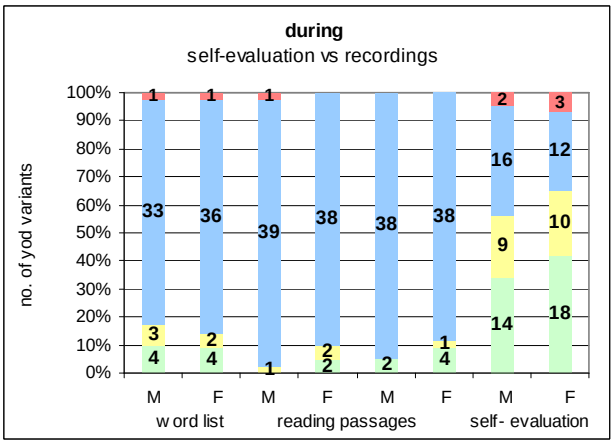
For some informants, yod was clearly not salient (for discussion of the concept of salience see chapter 6.4). They had problems seeing (in the phonetic spelling) and hearing (when they or I read it out) some of the pronunciation variants, especially the coalesced variants. This might explain the discrepancies in words with four yod variants. We can probably assume that in *suitable, lucrative* and *enthusiasm*, with only two possible choices, the variation might be caused by over- and under-reporting. Figure 5.53 shows the comparison of pronunciation in the eight yod words in the word list, reading passages and self-reporting. There is under-reporting in all three words with two possible yod variants: *suitable* is substantially under-reported by both sexes, *lucrative* is more or less assessed correctly by men and under-reported by about nine women, and *enthusiastic* is under-reported more frequently by women than by men. Judging by the five words with four possible yod variants, coalescence either does not seem to be salient, or if it is salient, it seems to be stigmatised, since a striking number of informants do not admit or realise that it is the variant they actually use. *News* is a special case because there is no way of spelling in English that represents the strongly palatalised [ɲ]. There was a blank line in the questionnaire in case the informant felt they said neither *nooz* nor *nyooz*. Only one informant thought that she said something different and I recorded her version accordingly. As a result of being able to choose from only two variants when there are in fact four and a very likely lack of [ɲ] salience, informants who say [ɲuːz] most likely chose the yod dropping variant [nuːz] and informants who say [ɲɪuːz] most likely chose the yod retaining variant [nɪuːz]. If this assumption is correct, the self-reporting by both sexes is very close to the word list recordings. *Presumably* is strongly under-reported, equally by men and women. *During* and *situation* are massively over-reported in that according to the self-reporting, coalescence takes up a noticeably smaller part in the yod variant distribution. The differences between the reading and self-reports for coalescence are around 40% in *during* and about 60% in *situation*, where 18% yod dropping is reported, which did not occur in the reading at all. The yod pronunciation in *situation* is the least salient of these eight words

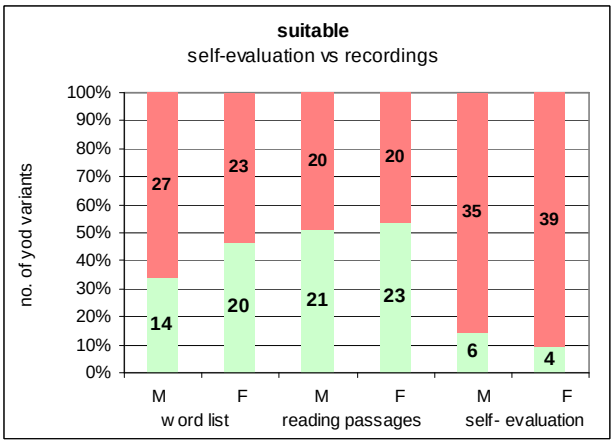
because it occurs word-medially in an unstressed syllable. *Tuesday* is slightly over-reported. The gender differences in *during*, *situation* and *Tuesday* are not great.

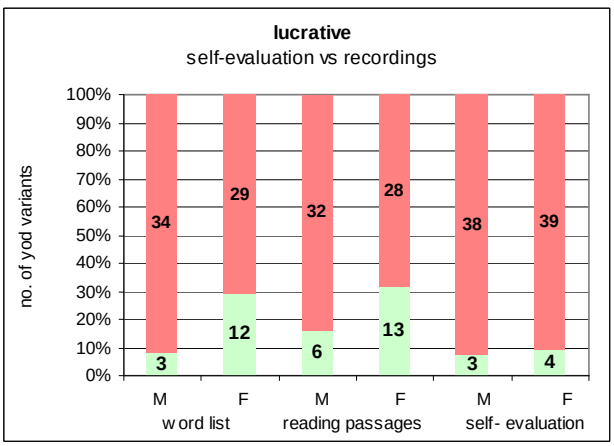
To summarise the results of the self-evaluation, *suitable*, *presumably*, *enthusiasm* and *lucrative* are under-reported in this order; *situation*, *during* and *Tuesday* are over-reported in this order. There are no huge differences between the self-reporting of men and women and when they vary, there is no consistent pattern, which does not confirm the results from Trudgill's study. Yod dropping does not seem to be stigmatised, unlike coalescence.

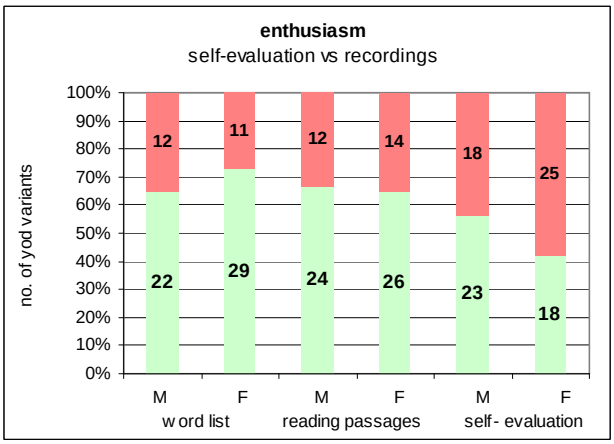












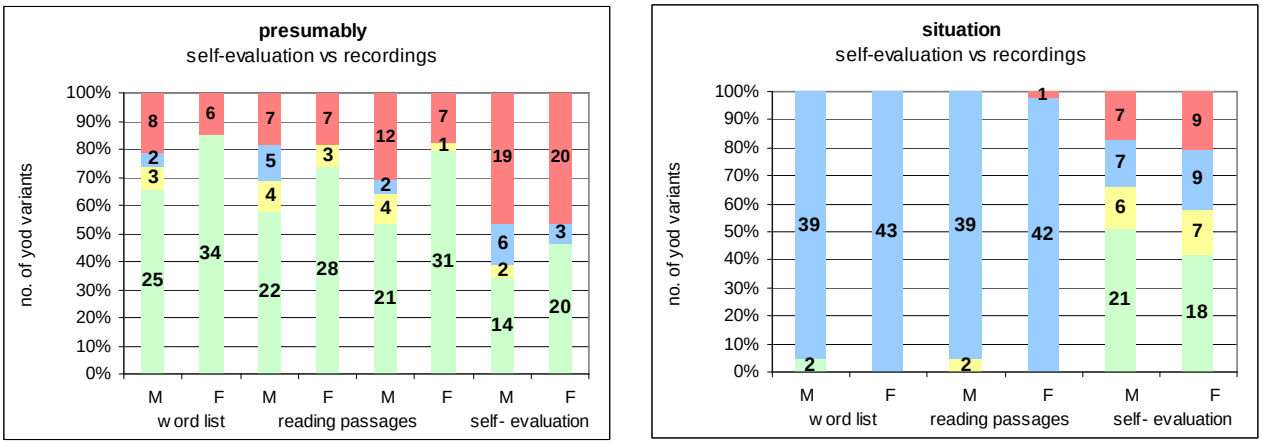


Fig. 5.53 A comparison of the choice of yod variants in reading and self-reporting between males and females in eight words

5.7 Conclusion

The study has revealed many inconsistencies in yod behaviour. As for linguistic factors which are discussed in the literature in connection with yod or as a general phonetic principle, it has been confirmed that:

1) the standard variant, i.e. yod retention, occurs more frequently in the more careful style, i.e. word list, but only in stressed syllables
2) coalescence occurs more often in unstressed syllables than in stressed syllables
3) the preceding context is the main decisive factor for the choice of a yod variant.

The proportion of yod retaining variants (1&2) is only 3% higher in unstressed than in stressed syllables. Coalescence with 48% is the dominant feature in unstressed syllables. Yod dropping with 32% is the most frequent feature in stressed syllables, closely followed by coalescence (30%) and retention (28%) (Fig. 5.6.).

Yod retention and coalescence with yod occur more frequently in the more careful style at the expense of coalescence and yod dropping (Fig. 5.8), more clearly in stressed (43% in WL compared to 35% in RP) than in unstressed syllables (42% in WL compared to 40% in RP).

Even though the style and stress show differences in the choice of yod variants, the major factor which influences the choice of yod are the individual preceding consonants (Figs. 5.9. and 5.11). Yod retention is the most frequent yod realisation after /θ/, /n/ and /z/; coalescence

is the most frequent yod realisation after /t/, /st/ and /d/ regardless of stress, which is the decisive factor for the choice of yod variant after /s/ and /l/. In stressed syllables, yod dropping is the main yod realisation for both /s/ and /l/. In unstressed syllables, /l/ is most often pronounced with retained yod, which is also true for /s/ if we mean both yod retaining variants, otherwise it is coalescence.

The syllable position of yod in a word might have some influence on the choice of the variable (Figs. 5.14 and 5.31). The following conclusions apply to words with four possible yod realisations:

1. The 1–3 group pattern (yod in the main stress on the first syllable in 1 to 3 syllable words) is not clearly distinguished. However, one-syllable words have more both yod retaining variants (1&2), which decrease in two- and three-syllable words at the expense of coalescence.
2. Words with a potential yod in the main stress in a non-initial syllable or in the secondary stress (syllable groups 4 and 5) have a different pattern from words with yod in the main stress on the first syllable (syllable groups 1, 2 and 3) in that there is more yod retention and mostly less coalescence in groups 4 and 5.
3. Words with a potential yod in an unstressed syllable separated from the main stress by another syllable (group 6) behave more like the one-syllable words with /ju/ in the main stress (group 1).
4. There are more yod dropping variants (3&4) in /ju/ words before a stressed syllable (group 8) than after a stressed syllable (group 7).

In words with only two possible yod realisations (Fig. 5.32), there is evidently more dropping in stressed compared to unstressed syllables with the exception of group 6 which has the same behaviour as groups 1 to 3. There is more dropping in group 8 than in group 7, which is analogous to point 4 above. Similarly, more yod retention in groups 4 and 5 is analogous to point 2 above.

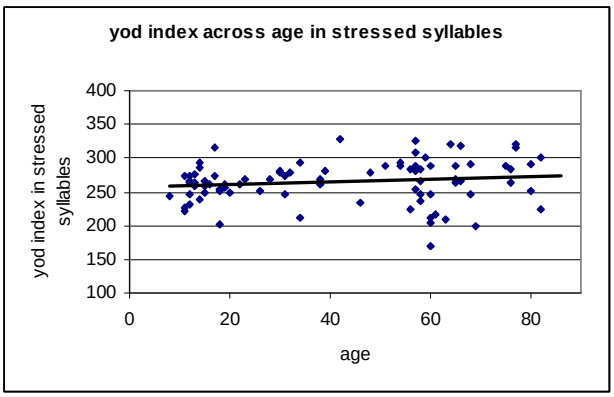
Yod retention is the most common variant before voiced consonants (together with coalescence) in stressed syllables, and at the end of words in unstressed syllables. Coalescence with yod is the most common realisation in word-final positions in stressed syllables. Coalescence is most common before vowels and voiced consonants (together with retention) in stressed syllables, and all contexts except for word-finally in unstressed

syllables. Yod dropping is most common before semi-vowels and devoiced consonants in stressed syllables (Figs. 5.33 and 5.34).

Yod words with the same morpheme mostly have a similar distribution (chapter 5.4.6). Deviations are caused by either the contrast of yod in stressed as opposed to unstressed syllable position or when yod occurs in word-final in contrast to non-final syllable.

Even though certain patterns emerge in general, on closer inspection major discrepancies can be seen. Firstly, a variable can be influenced by individual lexical items in addition to the phonological context. Lexical diffusion, which takes shape of an S-curve when shown in a diagram, means that some words are influenced by the change earlier and some later. Common words with a certain phonological environment start the change by fluctuating between the old and the new form until the new form pushes out the old one. When the innovation has spread to about 20% of words, then a majority of words follow in rapid succession and the change slows down at the end for the last 20% of words (Aitchison 1991, Chambers 2003:222, Llamas 2007). Secondly, the haphazard behaviour of yod distribution in different syllable groups, styles and preceding contexts suggests that a change is in progress.

The correlation of social factors with yod pronunciation in general or with individual yod realisations is not very convincing because it rarely occurs in both styles. There is a significant correlation of yod index with age (positive in SS & negative in US) (Fig. 5.54), with education (negative in US) (Fig. 5.55) and with mental urbanisation (positive in SS) (Fig. 5.56). Even though the significance of the correlation never gets confirmed in both styles, the trend is visible in the scattergrams, where both styles are represented equally. Yod dropping variants increase with age and mental urbanisation in stressed syllables, and decrease with age and the level of education in unstressed syllables.



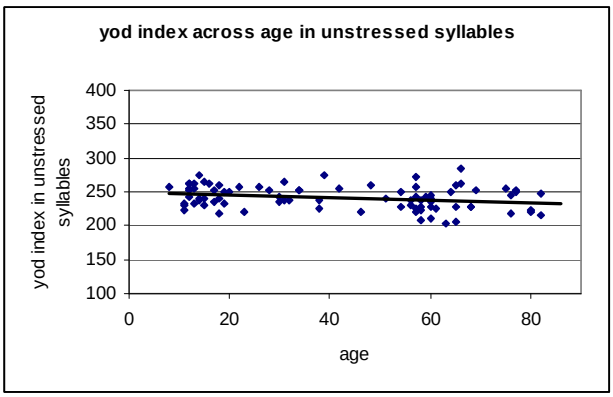


Fig. 5.54 Yod index (WL&RP) across age, separately in stressed and unstressed syllables

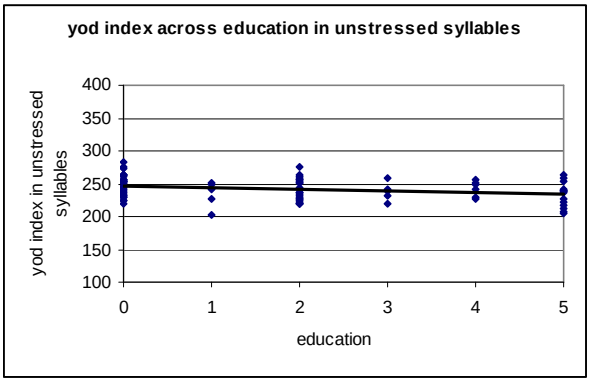


Fig. 5.55 Yod index (WL&RP) across education in US

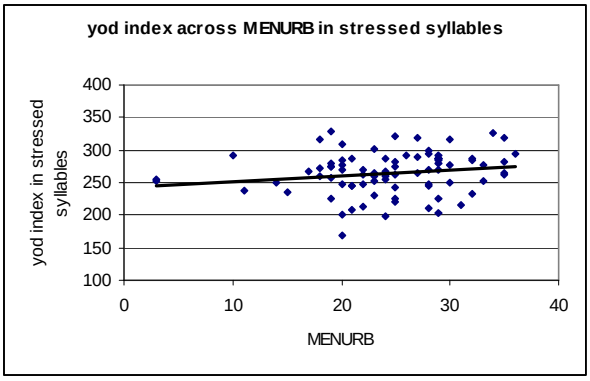


Fig. 5.56 Yod index (WL&RP) across MENURB in US

There are only a few cases of a significant correlation between a particular yod realisation and a social factor which is confirmed in both styles:

- a positive correlation of yod retention in unstressed syllables with age (Fig. 5.57) and education (Fig. 5.58) means that yod retention in unstressed syllables increases with age and higher levels of education

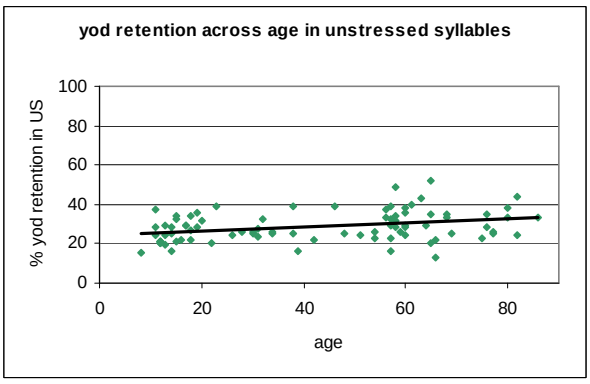


Fig. 5.57 Yod retention (WL&RP) across age in US

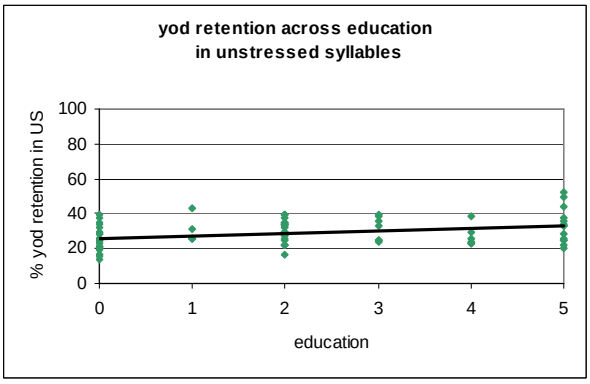


Fig. 5.58 Yod retention (WL&RP) across education in US

- a negative correlation of coalescence in stressed and unstressed syllables with education (Fig. 5.59) means that informants with lower education tend to have more coalescence in all words
- a positive correlation of yod dropping in stressed syllables with age means that older informants have more dropping in stressed syllables than younger informants.

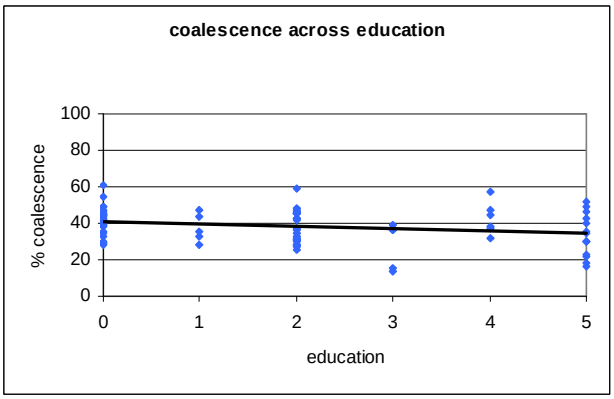


Fig. 5.59 Coalesence (WL&RP in SS&US) across education

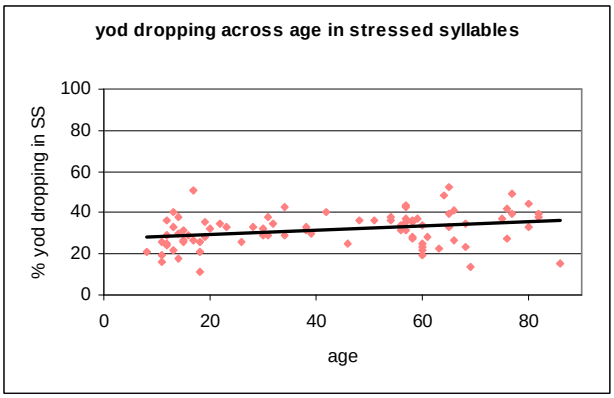


Fig. 5.60 Yod dropping (WL&RP) across age in SS

However, multiple linear regression revealed an interdependence between social factors which could not be seen otherwise. As a result, some factors that appear to be significant in isolation, e.g. mental urbanisation, are no longer significant when all factors are considered together, while some factors which appeared to be insignificant in isolation, e.g. sex and social networks, seem to be influencing the choice of yod. No social factor has been found significant for the choice of yod in both styles in multiple regression. Nevertheless, the statistical results say that

1) in stressed syllables (RP), yod dropping increases with age and socio-economic class
2) in unstressed syllables, yod retention increases with education (RP); coalescence with yod is more frequent among men (WL); coalescence decreases with age (WL), socio-economic class (WL) and education (RP); yod dropping (RP) is more common among women, increases with socio-economic class and decreases with education.

6. Comparison of Braintree and Weston studies

6.1 Overall distribution

The overall distribution of yod pronunciation in Braintree and Weston (Fig. 6.1) is identical: 40% yod retaining variants (1&2) and 60% yod dropping variants (3&4). The differences between Braintree and Weston in the four yod realisations are no greater than 2%, the most frequent yod realisation being coalescence.When stressed and unstressed syllables are looked at separately, the differences increase to 4%. In both studies yod dropping is the most frequent variant in stressed syllables and coalescence in unstressed ones.

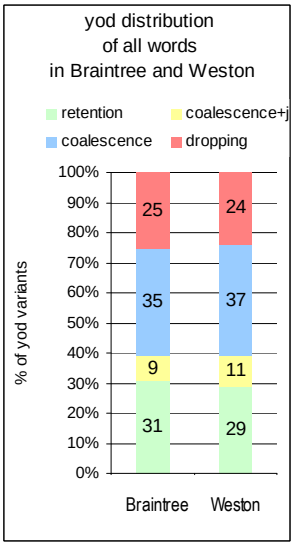


Fig. 6.1 Yod distribution in Braintree and Weston

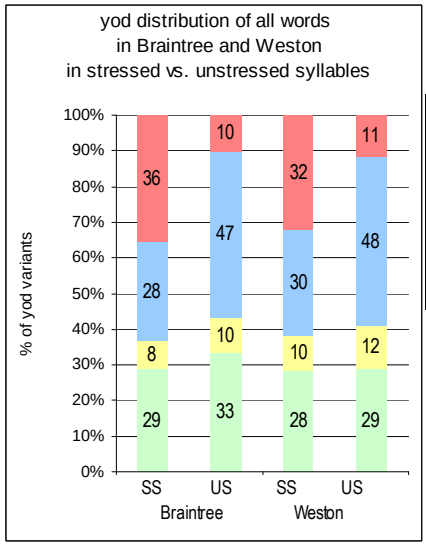


Fig. 6.2 Yod distribution in Braintree and Weston in SS x US

yod variants	*1*	*2*	*3*	*4*	*total*
Braintree	4591	1291	5331	3827	15040
Weston	5192	1918	6710	4326	18146
Braintree SS	2611	699	2545	3224	9079
Weston SS	1980	592	2786	603	5961
Braintree US	3091	1069	3236	3504	10900
Weston US	2101	849	3474	822	7246

6.2 Yod variants across linguistic factors

6.2.1 Stress and style

The above diagram (Fig. 6.2) shows that there is more retention, coalescence with yod and coalescence in unstressed compared to stressed syllables at the expense of yod dropping in both studies. Similarly, there are more yod dropping variants (3&4) in reading passages compared to the word list in stressed and unstressed syllables in both studies. Yod pronunciation across stress and style has the same development in both studies. However, it variaties across preceding context.

6.2.2 Preceding context

Preceding context in stressed syllables

The yod distribution patterns in stressed syllables remain the same in both studies only in preceding contexts where only two yod realisations are possible, i.e. after /l/ and /θ/, and after /s/ and /z/, where coalescence is limited to a word-non-initial position of yod. The main realisation after /s/ and /l/ is yod dropping, and after /z/ and /θ/ it is yod retention. However, even though the patterns are the same, it is precisely here that the greatest difference between the two towns emerges: **there is noticeably more yod dropping after /l/ in Braintree and after /θ/ in Weston** (Fig. 6.3).

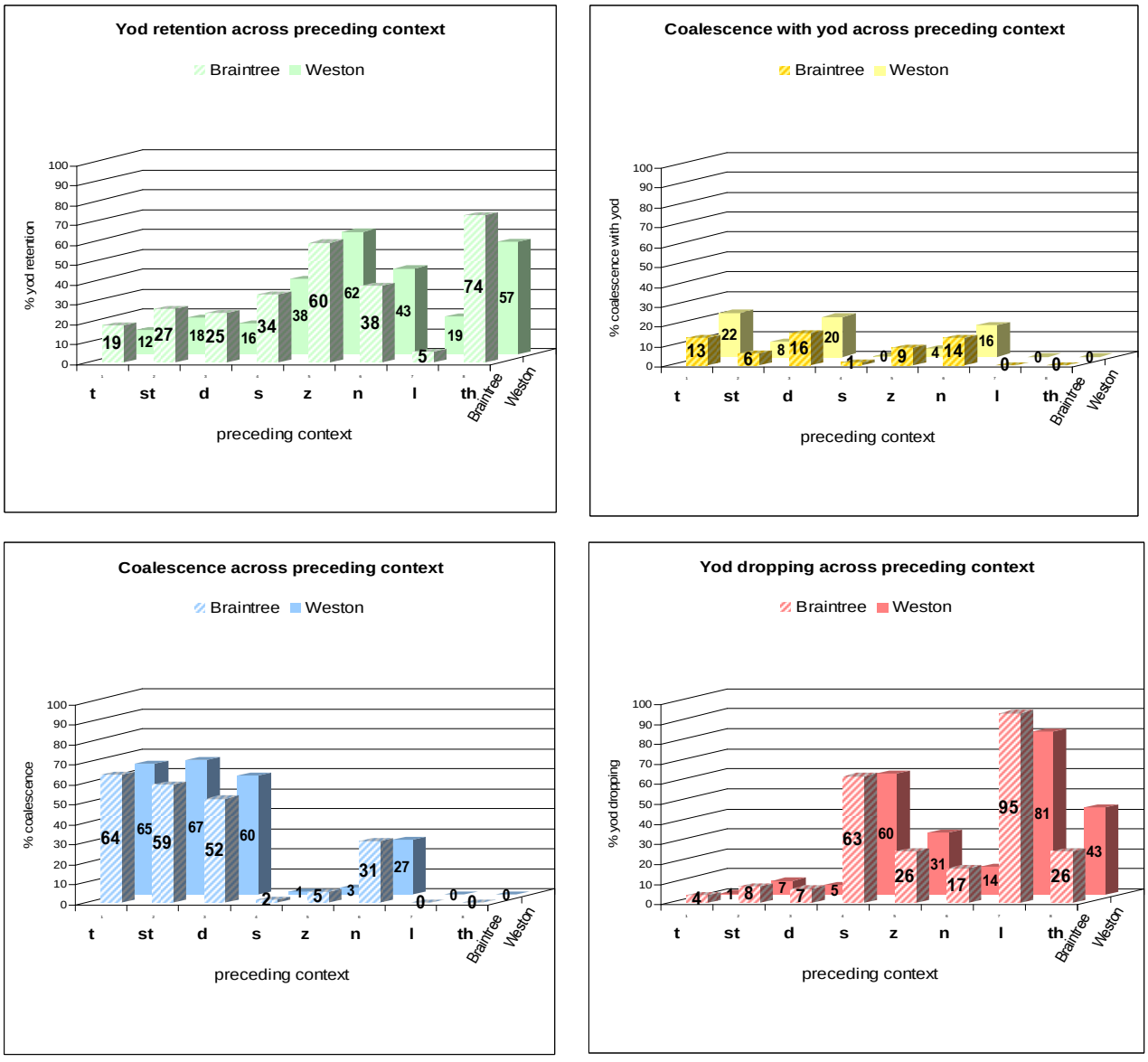


Fig. 6.3 Yod distribution in stressed syllables across preceding context in Braintree and Weston

Although the patterns after /t, st, d, n/ are not the same in both studies, the dominant variants are: coalescence after /t, st, d/ and retention after /n/. There is more coalescence after /t, st, d/ and coalescence with yod after /t, st, d, n/ in Weston than in Braintree at the expense of retention. **There is no consistent development of yod pronunciation across preceding context when two studies are compared, so each preceding context has to be compared separately.** The same applies even when we look at both yod retaining variants (1&2) as one group and yod dropping variants (3&4) as another group (Fig. 6.4).

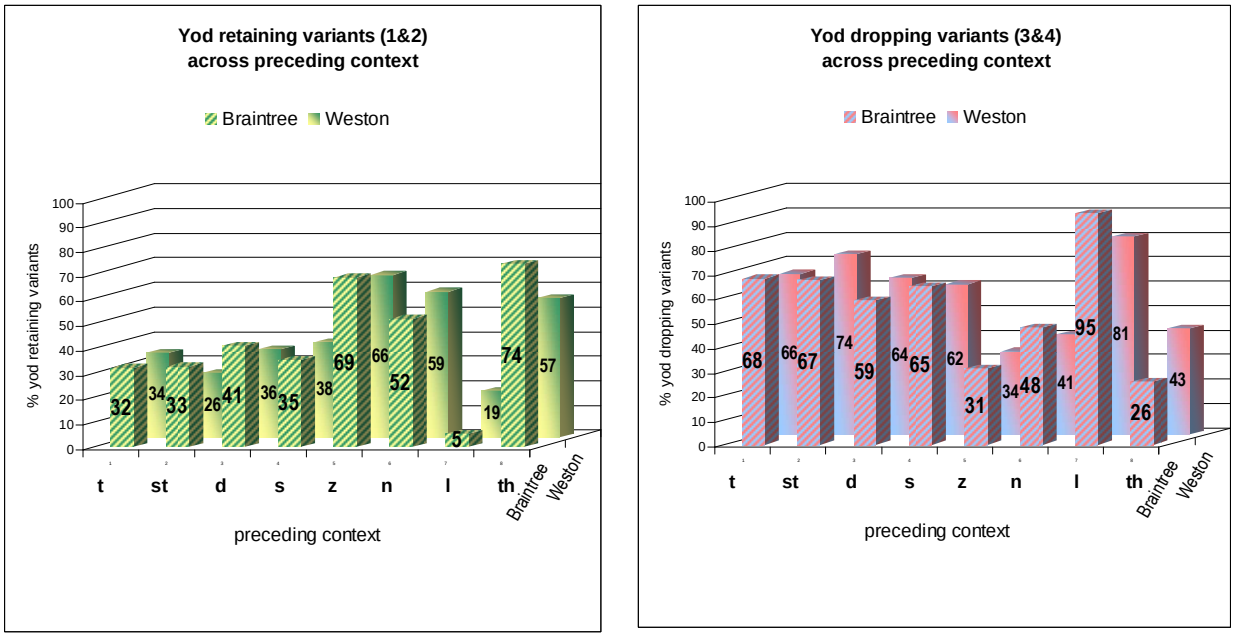


Fig. 6.4 Yod retaining and yod dropping variants in stressed syllables across preceding context in Braintree and Weston

Overall, **there are more yod retaining variants after /z, n, θ/ and more yod dropping variants after /t, st, d, s, l/ in both studies**. Apart from the already mentioned /l/ and /θ/, the differences between yod retaining and yod dropping variants after the other phonemes are not greater than 7% in the two towns.

Preceding context in unstressed syllables

The yod distribution patterns in unstressed syllables remain the same in both studies in all preceding contexts except for /z/ and /n/. The main yod realisation after /t, st, d, s/ is coalescence and after /z, n, l, θ/ it is yod retention. **Braintree has more retention than Weston in all preceding contexts except for /n/**, the greatest difference being 17% more retention after /z/ and 11% after /θ/ in Braintree at the expense of yod dropping. There is also

11% more coalescence with yod after /t/ and 17% more coalescence after /st/ in Weston (Fig. 6.5). Weston has more coalescence and yod dropping than Braintree in most contexts.

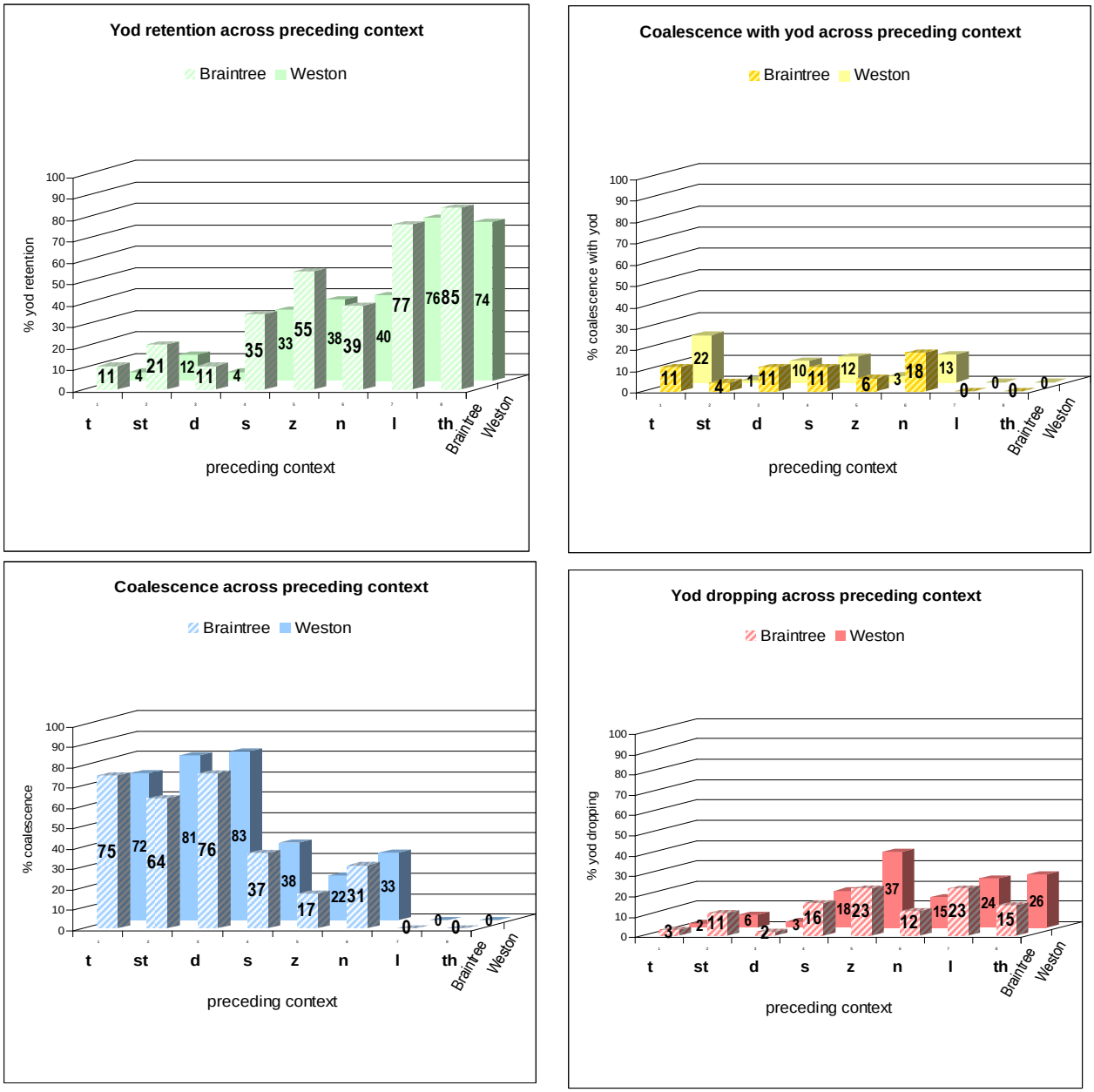


Fig. 6.5 Yod distribution in unstressed syllables across preceding context in Braintree and Weston

When yod retaining and yod dropping variants are compared, Braintree has more yod retaining variants in all contexts except for /t/ (Fig. 6.6).

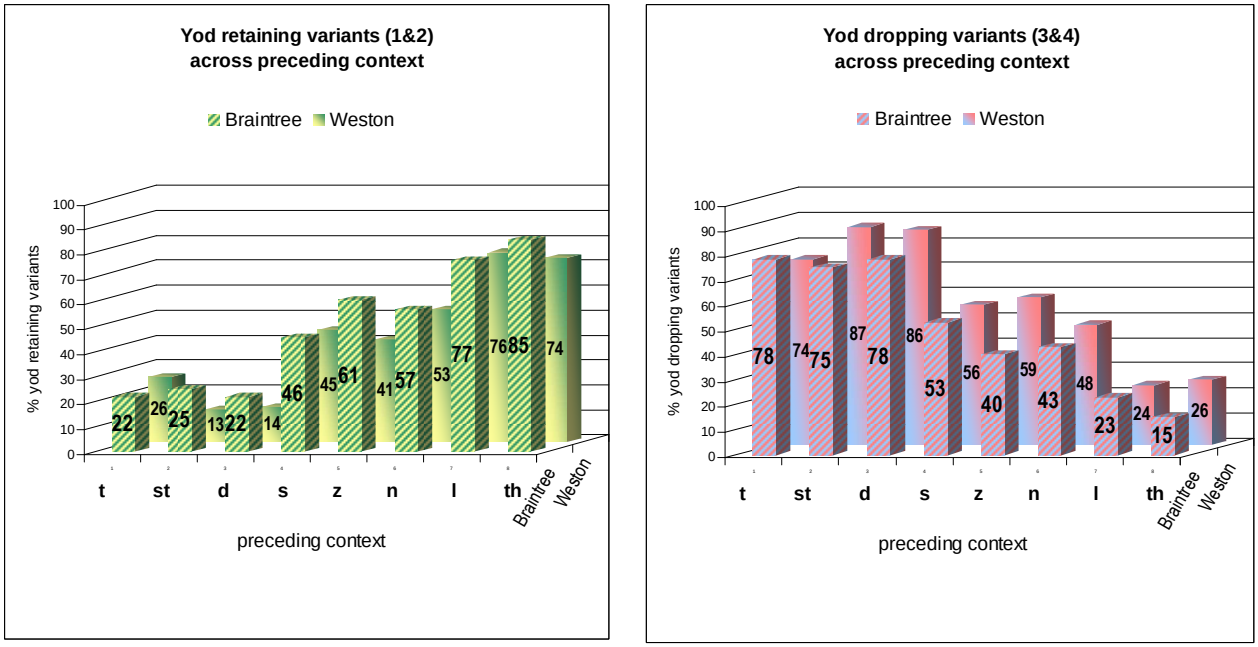


Fig. 6.6 Yod retaining and yod dropping variants in unstressed syllables across preceding context in Braintree and Weston

To summarise the pronuncation of yod across the preceding context: while no systematic preference of yod realisation can be seen in stressed syllables, there is a clear tendency for Braintree informants to retain yod more frequently in unstressed syllables than for Weston informants.

6.2.3 Syllable groups

Figure 6.7 shows that Braintree informants have slightly more yod retention than Weston informants in all syllable groups except for syllable group 3, i.e. yod in the main stress on the first syllable in a three-syllable word. The coalescence and yod dropping distribution across syllable groups in Braintree and Weston is very similar. The greatest difference between the two places is the more frequent use of coalescence with yod in syllable groups 1 and 6 in Weston. This coincidentally confirms the similar linguistic behaviour of these two linguistic groups (Bauer 1994:108). Braintree informants have more coalescence than Weston informants in perhaps the most salient yod position – on the first syllable with /ju/ in the main stress (syllable group 1); and more yod dropping in word-initial stressed syllables (groups 1–3).

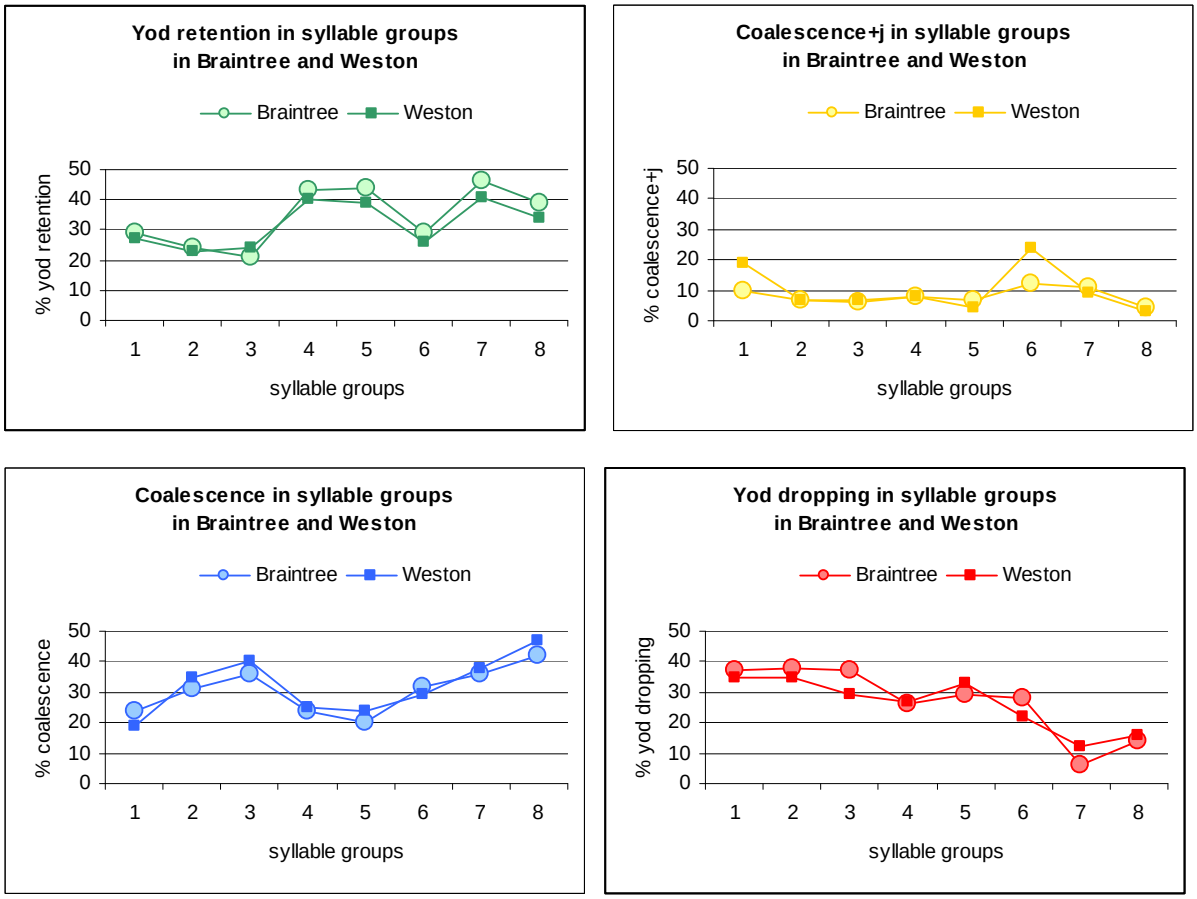


Fig. 6.7 Yod distribution across syllable groups in Braintree and Weston

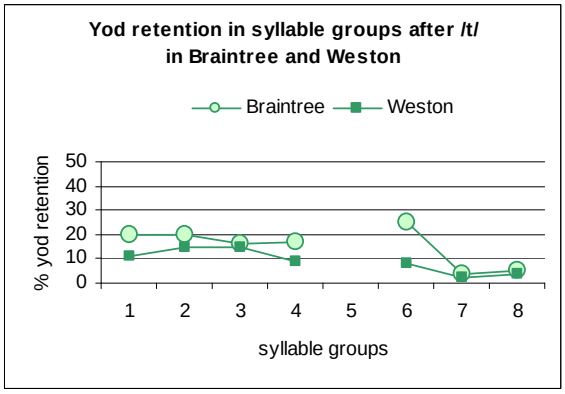
This comparison confirms the 1–3 syllable pattern, where retention decreases while coalescence increases with the number of syllables in a word. It further confirms that there is more coalescence and dropping in group 8 than in group 7. Thirdly, it shows that the unstressed-syllable group 6 has a distribution of retention and coalescence with yod which is very close to that of the stressed-syllable group 1. Groups 4 and 5 behave similarly: more retention and less coalescence and dropping than the other stresssed-syllable groups.

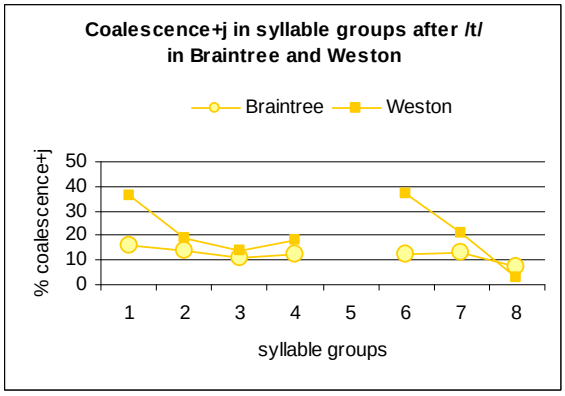
Since the preceding context seems to be one of the decisive factors for the choice of the yod realisation, a comparison after individual phonemes for the two locations is also presented. Graphs are provided where the differences are too complex to be fully described, mainly where four yod realisations are possible. A comparison of the individual words is made, and words where a yod realisation varies by more than 10% between Braintree and Weston are noted. It has also been checked whether a word frequency correlates with a choice of a particular yod variant. There is no significant correlation between a particular yod realisation (or yod retaining and dropping variants) and word frequencies in either town. However, there

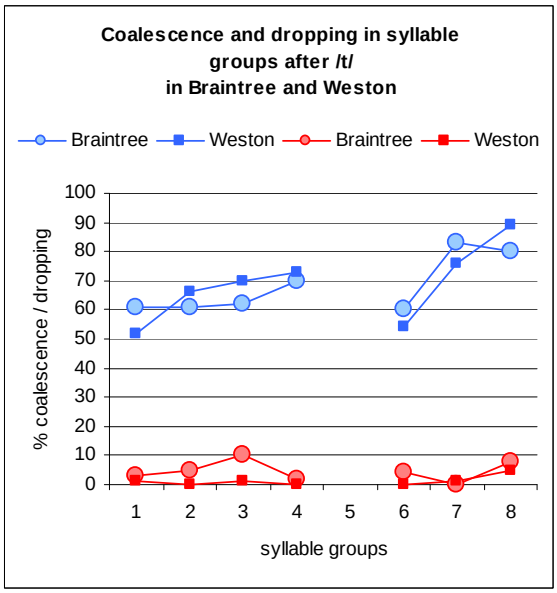
are significant correlations (at the 10% level) between some yod variants and word frequencies in individual preceding contexts in one or both locations.

Syllable groups after /t/

There is more retention in Braintree and more coalescence with yod in Weston (Fig. 6.8). Yod retaining variants on the whole (Fig. 6.9) are relatively even in stressed syllables except for group 1, where Weston informants use them more often. This distribution of group 1 is also reflected in group 6 in both towns. More yod dropping occurs in Braintree in the more salient positions (groups 1–3).







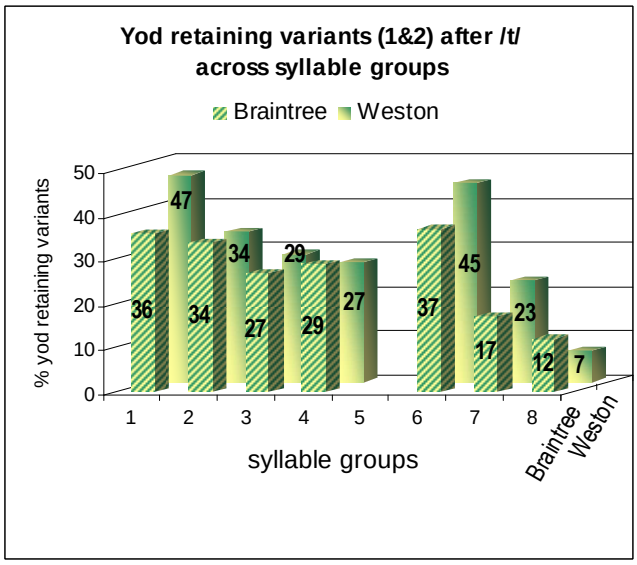


Fig. 6.8 Yod distribution after /t/ across syllable groups in Braintree and Weston

Fig. 6.9 Yod retaining variants after /t/ across syllable groups in Braintree and Weston

When the distribution of individual /t/ words is compared, half of the words vary in at least one yod realisation by more than 10%. In most cases it concerns more retention in Braintree (*tune, attitude, substitute, constitute, aptitude* and *Neptune*) and more coalescence with yod in Weston (*tube, tune, attuned, attitude, substitute, constitute, aptitude, virtue* and *Neptune*). In other words, Braintree informants have more retention in words from syllable group 6 while Weston informants have more coalescence with yod in these words.

Syllable groups after /st/

Braintree informants have more retention after /st/ in all syllable groups (Fig. 6.10). The frequency of yod dropping is similar in both towns. Overall, Braintree has more yod retaining variants than Weston, except in *stew* (group 1) (Fig. 6.11).

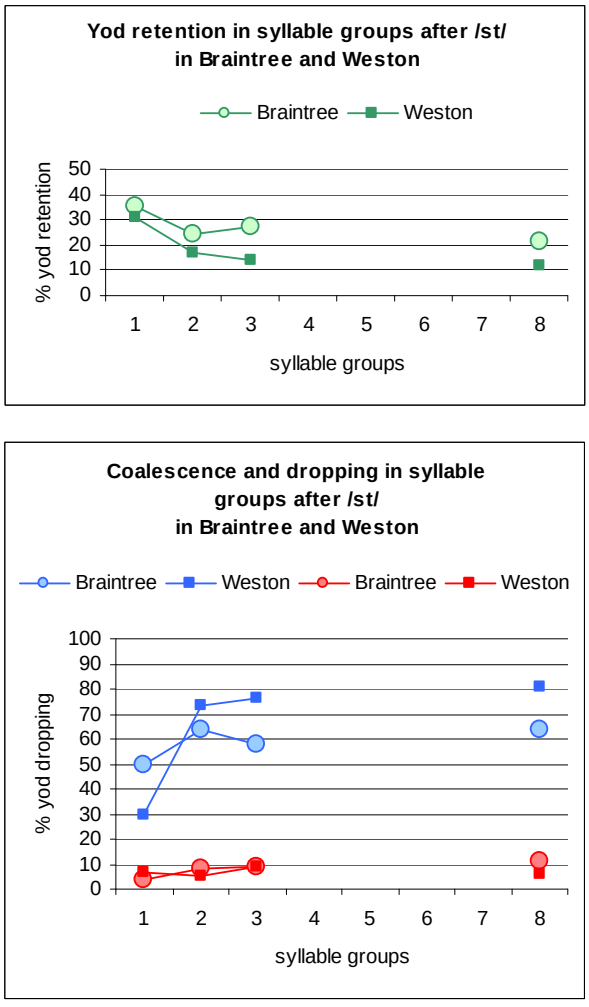


Fig. 6.10 Yod distribution after /st/ across syllable groups in Braintree and Weston

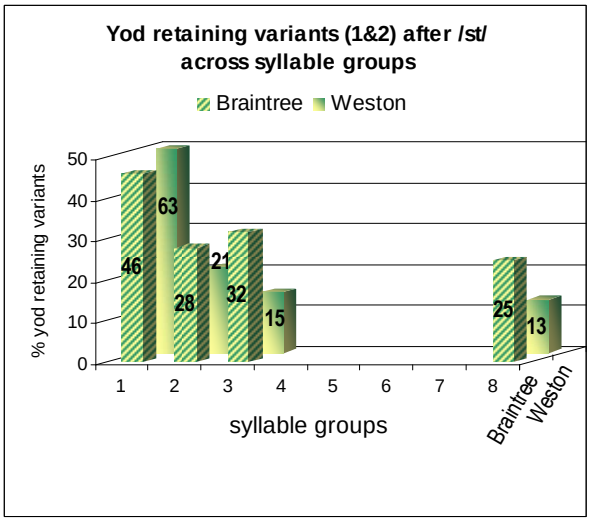


Fig. 6.11 Yod retaining variants after /st/ across syllable groups in Braintree and Weston

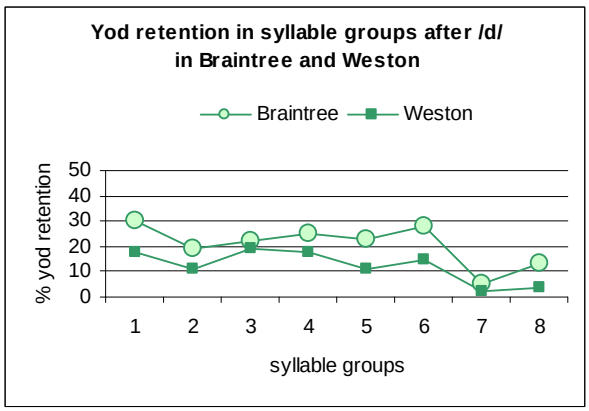
Weston informants have 20% more coalescence with yod in *stew*, where Braintree informants have coalescence. Weston informants have at least 14% more coalescence in *Stewart's*, *studious, studio* and *stupidity* mostly at the expense of retention, than Braintree informants.

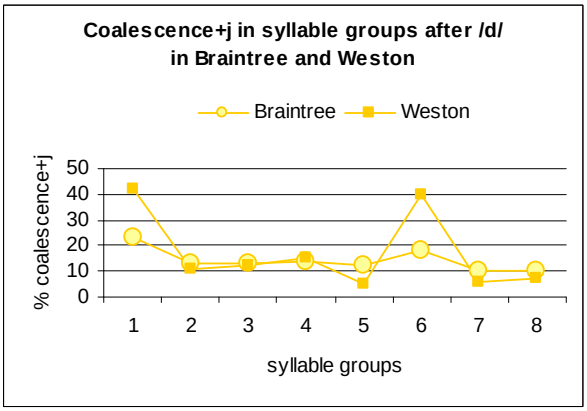
Syllable groups after /l/

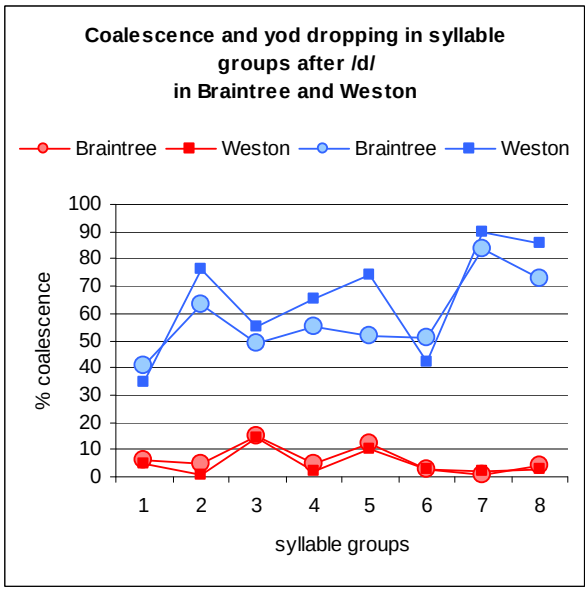
The expected pattern after /l/ was yod dropping in stressed syllables and group 6 and yod retention in unstressed syllables (groups 7 and 8). This is mostly the case in Braintree with the exception of *lure*, which has 31% retention, and *salutation* with 11% dropping. In contrast, Weston has 10–35% retention in all words from groups 1 to 6, except for *Lucy*. (Interestingly, there is only 20% retention in *lure*.) 10% and 24% yod dropping respectively is heard in *value* and *salutation*. There is a significant correlation between the choice of a yod variant and word frequencies in Weston: yod retention increases with the word frequency.

Syllable groups after /d/

There is more retention in Braintree in all syllable groups (Fig. 6.12). The amount of yod dropping is even in both towns. Coalescence is more frequent in Weston in all groups except 1 and 6, which again supports the theory about their similar linguistic behaviour. These groups represent the major difference between the two places: Braintree informants have more retention and coalescence in groups 1 and 6, whereas Weston informants have more coalescence with yod. Overall, there are more yod retaining variants in Braintree in all groups except for 1 and 6 (Fig. 6.13). There is a significant correlation between the choice of a yod variant and word frequencies in Braintree: coalescence with yod decreases with the word frequency and so do yod retaining variants in general.







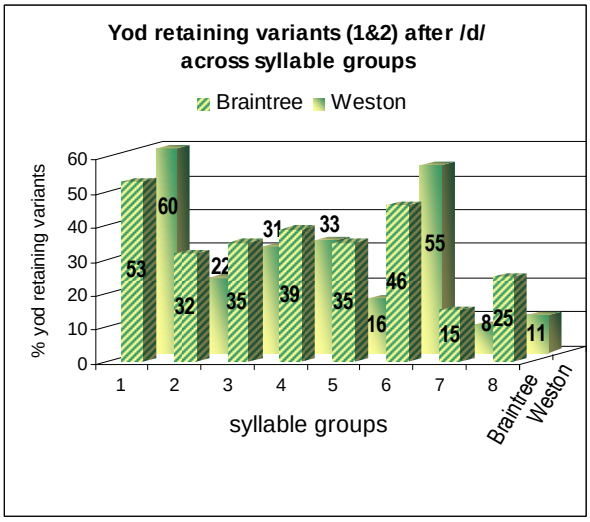


Fig. 6.12 Yod distribution after /d/ across syllable groups in Braintree and Weston

Fig. 6.13 Yod retaining variants after /d/ across syllable groups in Braintree and Weston

In the comparison of individual words, the greatest differences again are in the increased use of coalescence with yod or coalescence at the expense of retention in Weston compared to Braintree. There is 12–17% more retention in *due*, *dew*, *duodenal*, *residue* and *duration* in Braintree than in Weston, where *due*, *dew* and *residue* are pronounced with 18–22% more coalescence with yod, and *during*, *inducement*, *duodenal* and *duration* with 18–23% more coalescence than in Braintree.

Syllable groups after /s/

The pattern of yod distribution across the syllable groups after /s/ does not vary by more than 10%. The main realisation of yod in word-initial position (groups 1, 2, 3, 5) is dropping, and there is more dropping in Braintree in all of these groups. On the other hand, there is more dropping in group 4 in Weston. The differences in yod distribution among individual words

where all four yod realisations are possible, suprisingly do not exceed 10%. There is 13–28% more dropping in *super, Susan, Superman, suicidal, suitability* and *superfluous* in Braintree but 14–15% more dropping in *suet* and *superstition* in Weston. There is a significant correlation between the choice of two yod variants and word frequencies in both towns: coalescence with and without yod increases with the word frequency, which concerns words from groups 4, 7 and 8.

Syllable groups after /n/

Suprisingly, there are only two instances where the difference between a yod realisation in the two places exceeds 10%: there is 16% more retention in group 5 in Weston and 14% more coalescence with yod in group 7 in Braintree.

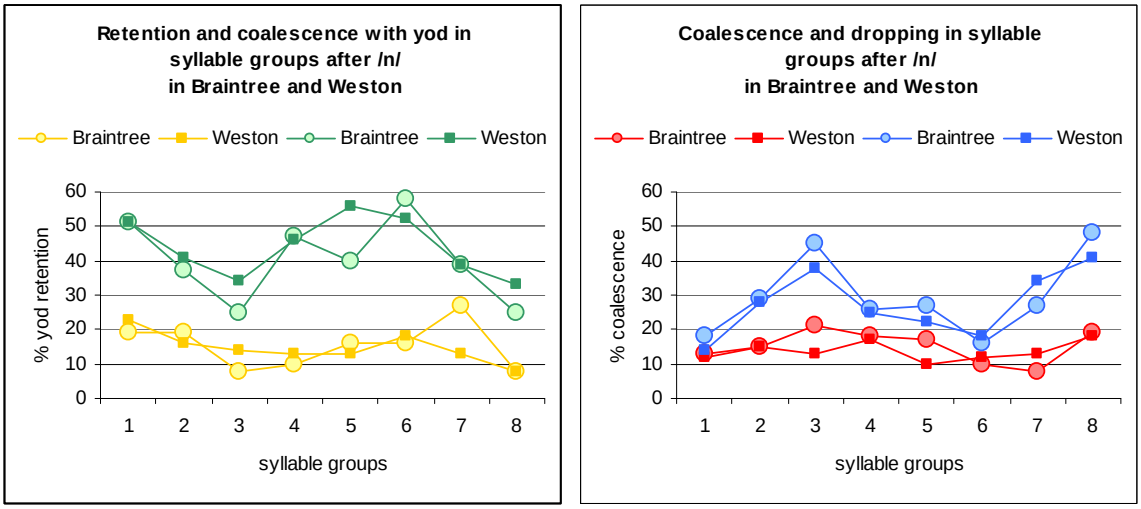


Fig. 6.14 Yod distribution after /n/ across syllable groups in Braintree and Weston

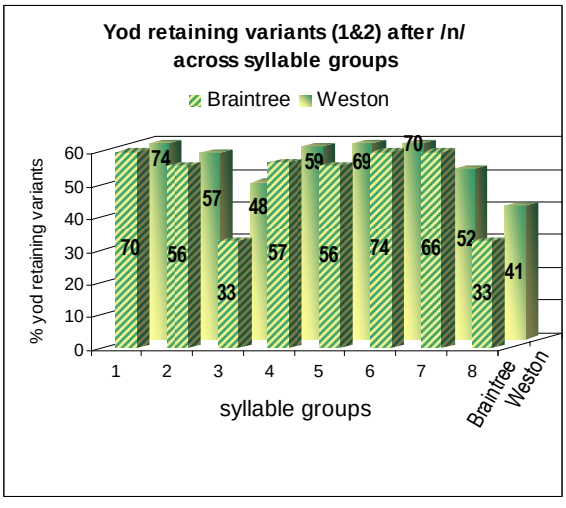


Fig. 6.15 Yod retaining variants after /n/ across syllable groups in Braintree and Weston

Overall, there are more yod retaining variants in Weston except in groups 1, 6 and 7. More differences emerge when individual words are compared. The stressed syllables in *neutral, nuclear* and *numismatic* have 11–16% more retention in Weston. There are two developments in unstressed syllables, going in opposite directions along the phonetic continuum: first, 12–17% more retention in *January, neutrality* and *numerically* in Weston

as opposed to 10–18% more coalescence in Braintree; second, 21–25% more coalescence with yod in *menu* and *annual* in Braintree compared to 18% more coalescence in Weston.

Syllable groups after /z/

There are only five /z/ words, three of which are not so common. The distribution pattern for *presume* and *presumably* is the same in both towns, retention being the dominant yod realisation. Yod retaining variants in general increase with the word frequency in Braintree.

Syllable groups after /θ/

Apart from the plants *thuya* and *anthurium*, retention is the dominant variant after /θ/. There is more retention in Braintree in all /θ/ words except in *Matthew*. Yod retention increases with the word frequency in both towns.

The following diagrams summarise the distribution in words with two and four possible yod variants separately. Figure 6.16 shows that Braintree informants have more yod retention and less coalescence than Weston informants in most cases. As mentioned earlier, Braintree informants have more coalescence only in groups 1 and 6. The amounts of dropping and coalescence with yod are similar in both locations, except for the already mentioned increased coalescence with yod in groups 1 and 6 in Weston.

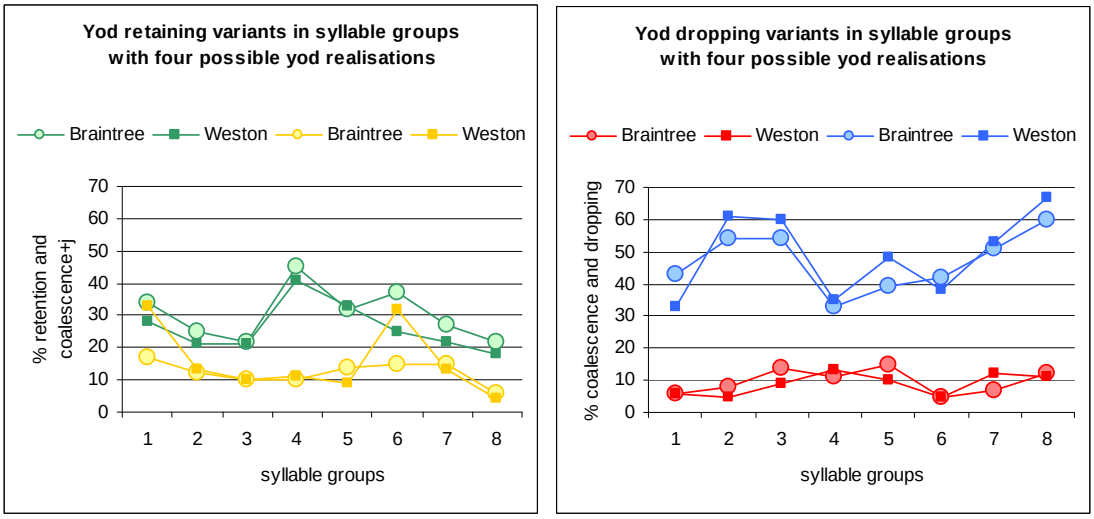
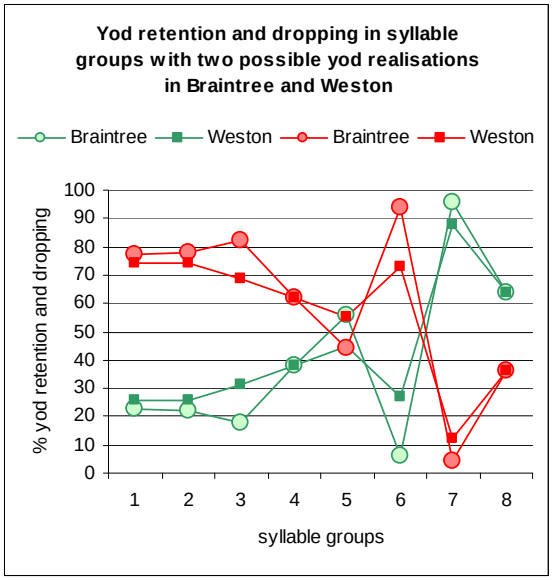


Fig. 6.16 Yod distribution across syllable groups with four possible yod realisations in Braintree and Weston



The distribution of retention and dropping in figure 6.17 differs from that in figure 6.16. Where only two yod realisations are possible, Weston has more retention in the salient positions (groups 1 to 3) and in group 6. The yod distribution of group 6 is closest to group 1 in all realisations in both figures and both locations.

Fig. 6.17 Yod distribution across syllable groups with two possible yod realisations in Braintree and Weston

6.2.4 Following context

There is 13% more coalescence with yod in stressed syllables at the end of words in Weston compared to more retention and coalescence in Braintree. The distribution in both towns is similar before consonants. In unstressed syllables, Braintree informants have 17% more coalescence at the end of words at the expense of retention, and Weston informants have 12% more coalescence before a vowel also at the expense of retention. There is a significant correlation (even at the 1% level) between yod retaining/dropping variants and open/close or word-final/non-final syllable: **there are more yod dropping variants in non-word-final and closed syllables in both locations and therefore more yod retaining variants in word-final and open syllables.** As for individual variants, the correlation is significant in both towns for **coalescence with yod, which increases in word-final and open syllables, and for yod dropping, which increases in closed syllables.**

6.3 Yod variants across social factors

There is considerably more correlation between yod pronunciation and social factors in Braintree than in Weston. The overall index (described in chapter 4.5. or 5.5), where both

styles and stresses are represented equally, suggests that age, mental urbanisation and education correlate significantly with yod pronunciation in Braintree. To be specific, the younger the informants, the more positive their attitude to urban lifestyle, and the lower their level of education, the more yod dropping variants (3&4) they have. No significant correlation overall has been proved in Weston. When style and stress are examined in isolation, the index shows some significant correlations even for Weston.

Tab. 6.1 Correlation between yod idex (stress and style separately) and social factors in Braintree and Weston

correlations	Braintree n=70, 1% r =0.306, 5% r = 0.235, 10% r = 0.198				Weston n=85, 1% r =0.278, 5% r = 0.215, 10% r = 0.179			
	WL s	WL u	RP s	RP u	WL s	WL u	RP s	RP u
index - age	**-0,452**	**-0,503**	**-0,466**	**-0,529**	0,071	**-0,359**	**0,222**	-0,178
index - sex	0,082	0,055	0,037	-0,003	-0,077	0,022	-0,079	0,167
index - socec	0,029	-0,014	0,056	0,043	-0,111	-0,018	-0,081	-0,067
index - occupation	-0,051	-0,111	-0,040	-0,065	-0,107	-0,075	-0,064	-0,134
index - education	**-0,308**	**-0,347**	**-0,312**	**-0,378**	-0,019	-0,177	0,023	**-0,355**
index - socnet	-0,098	-0,051	-0,105	0,054	-0,072	0,055	-0,048	0,037
index - menurb	**-0,326**	**-0,263**	**-0,356**	**-0,306**	0,123	-0,059	**0,239**	-0,125

Age seems to be the most significant social factor for yod pronunciation in both towns. Yod dropping variants (1&2) in stressed syllables decrease with age in Braintree, whereas in Weston they increase. In unstressed syllables, yod dropping variants decrease with age in both towns (Fig. 6.18).

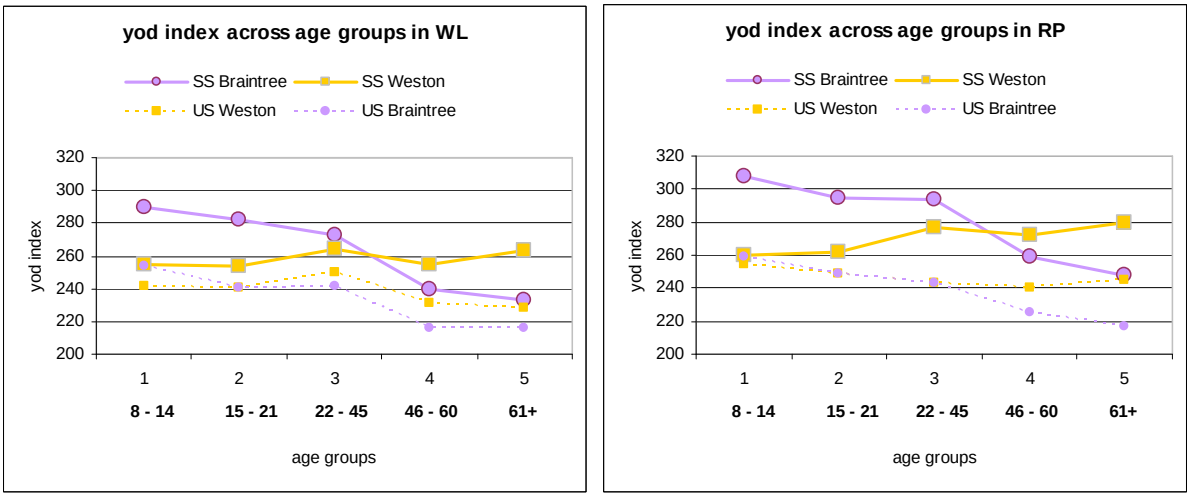


Fig. 6.18 Yod index across age groups in Braintree and Weston, separately for WL and RP

The indices show only a general tendency but to see exactly which of the yod variants are associated with which factor, we need to look at each factor across a particular yod realisation separately.

6.3.1 Yod variants across age

The amounts of yod retention and coalescence in both styles and stresses depend on age in **Braintree: retention increases and coalescence decreases with age**. The values are significant when correlated a) individually, b) in the five groups and c) in the multiple linear regression when other social factors were considered at the same time. The situation in Weston is not so straightforward because the results vary according to the method. The most reliable statement, confirmed by all three procedures mentioned above, is that age is a significant factor for yod dropping in stressed syllables – **yod dropping in stressed syllables increases with age in Weston**. Yod retention in unstressed syllables increases with age. The following diagrams (Figs. 6.19 and 6.20) show each yod realisation separately in the more and the less careful style and in stressed and unstressed syllables.

Weston informants under 45 have more retention and less coalescence than Braintree informants under 45. On the other hand, Braintree informants over 46 have more retention and less coalescence than Weston informants over 46. Weston informants in all age groups have more coalescence with yod than Braintree informants. **Braintree** informants **under 21** have noticeably (up to 15%) **more yod dropping than Weston** informants of the same age**.**

In unstressed syllables (Fig. 6.20), Braintree informants over 46 have more retention again but younger informants in both towns have approximately the same frequency. The frequency of coalescence is analogous to that of stressed syllables. Younger Weston informants again have more coalescence with yod than Braintree informants but the difference slowly disappears with increasing age. The differences in the use of yod dropping between the two locations are not great, perhaps slightly higher values of yod dropping can be noted in Weston among informants under 60.

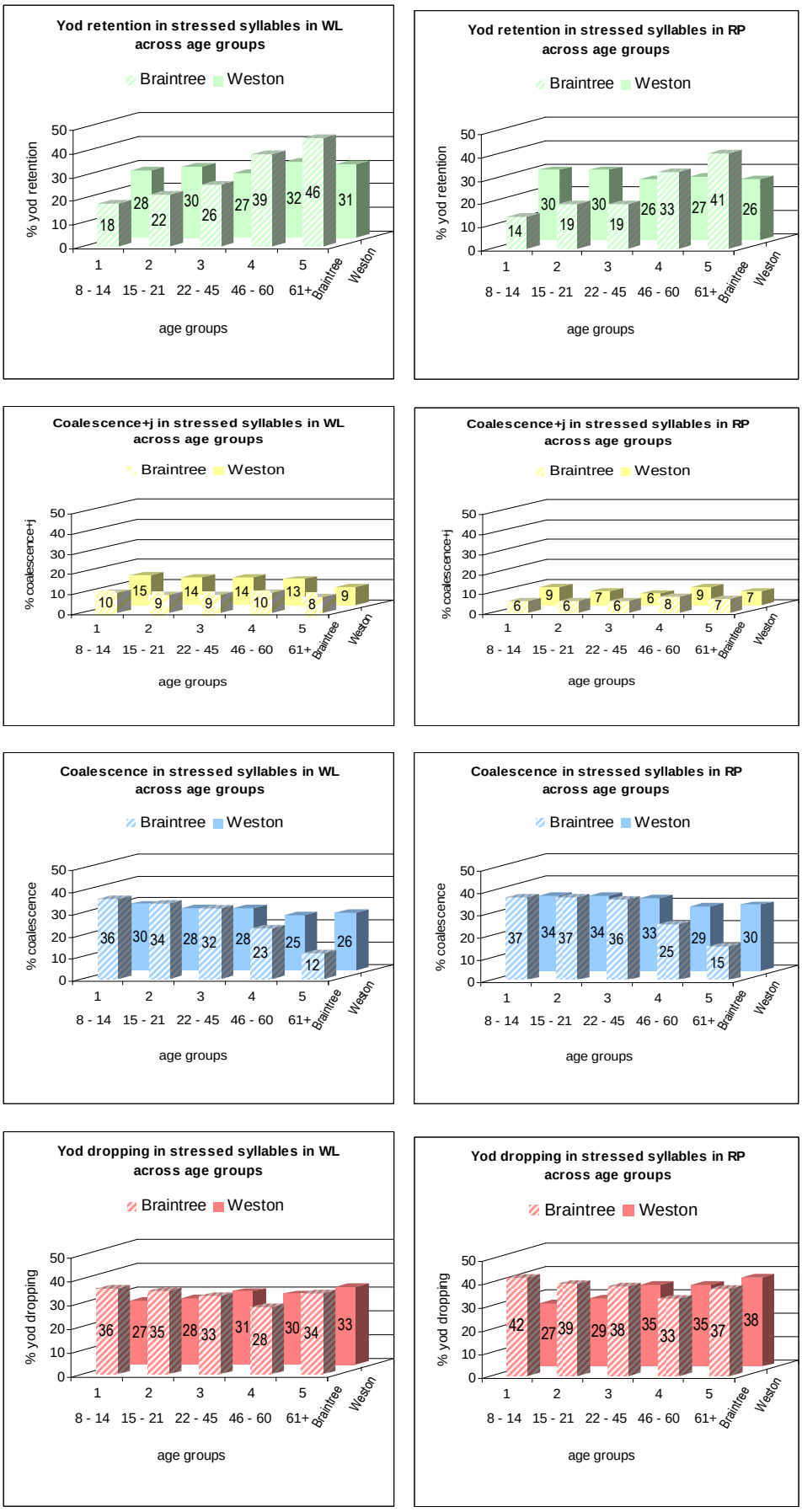


Fig. 6.19 Yod variants in stressed syllables across age groups separately in WL and RP

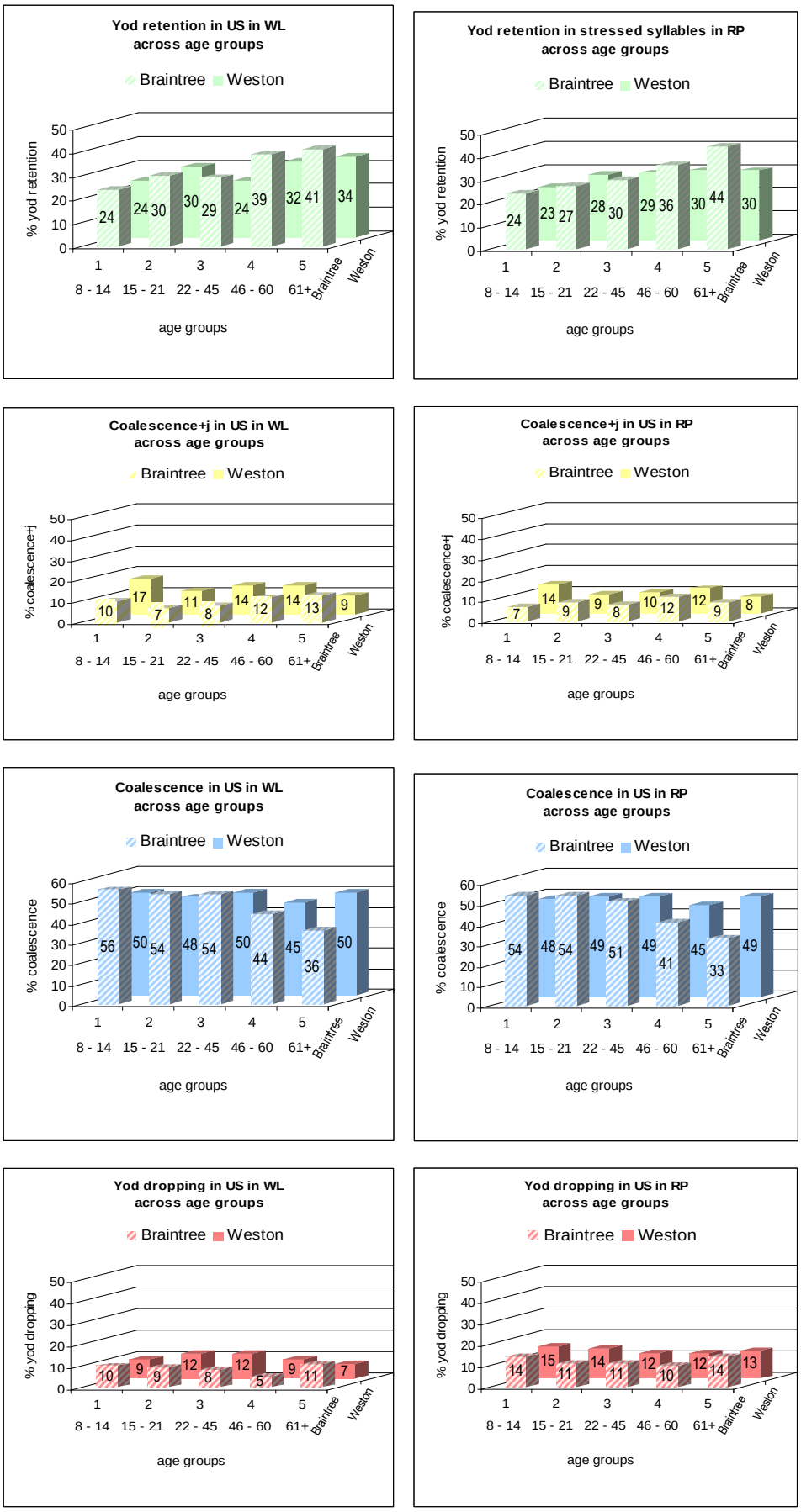
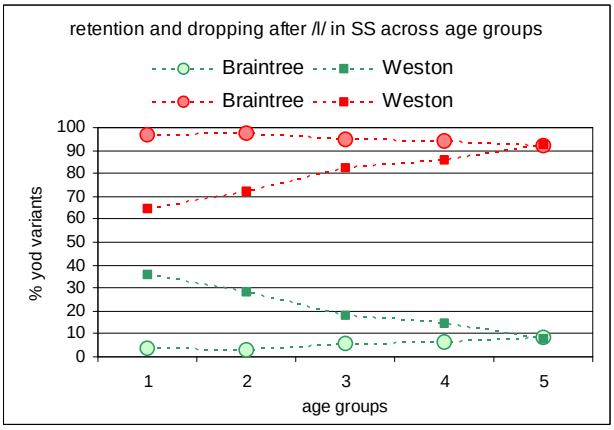


Fig. 6.20 Yod variants in unstressed syllables across age groups separately in WL and RP

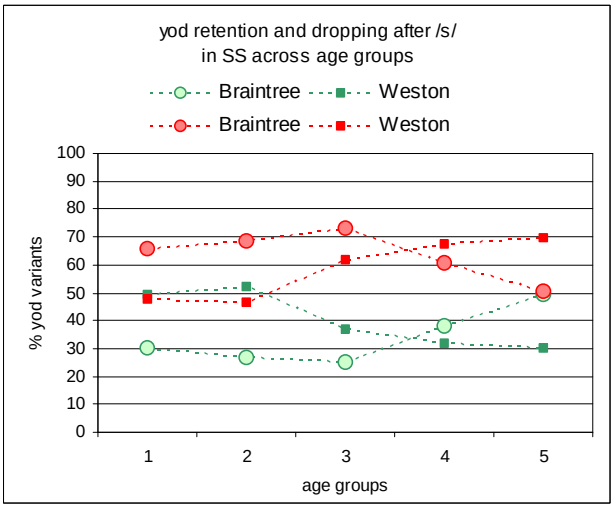
6.3.2 Yod variants across age and preceding context

Some yod variants in most preceding contexts in stressed syllables correlate positively or negatively with age in both towns. In unstressed syllables, though, this finding applies only to half of the yod variants. Age correlates significantly with yod retention in all preceding contexts in stressed syllables. In Braintree, coalescence decreases with age in all possible preceding contexts. /l/ in unstressed syllables is the only preceding context with no significant correlation across age in either town.

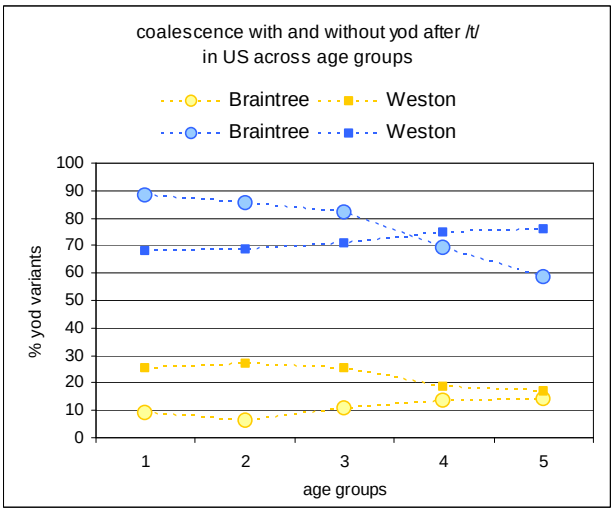
The most striking difference between the two locations is a slight decreasing tendency of yod dropping after /l/ with age in stressed syllables in Braintree in contrast to the notable increase of yod dropping with age in Weston (diagram left). Informants over 61 in both towns have the same amount of yod dropping. The most frequent yod droppers after /l/ in stressed syllables are Braintree adolescents and the lowest rate of yod dropping occurs among Weston children.



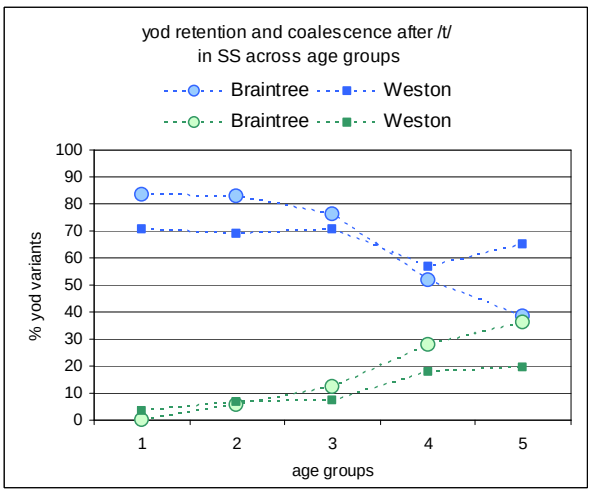
Other preceding contexts where a particular variant significantly correlates with age in the opposite directions are /s/ and /z/ in stressed syllables and /t/ and /s/ in unstressed syllables. Yod dropping increases with age in Weston and decreases in Braintree, so that the highest level of yod dropping after /s/ in stressed syllables occurs among Braintree children, adolescents, younger adults, and Weston older adults and retired informants (diagram left). Weston informants under 21 and Braintree informants over 61 all have about 50% of retention and dropping. The sample size of /z/ is rather small, but the development is similar to that of /s/, most clearly in that Weston informants over 46 have more yod dropping after /z/ than Braintree informants of the same age.

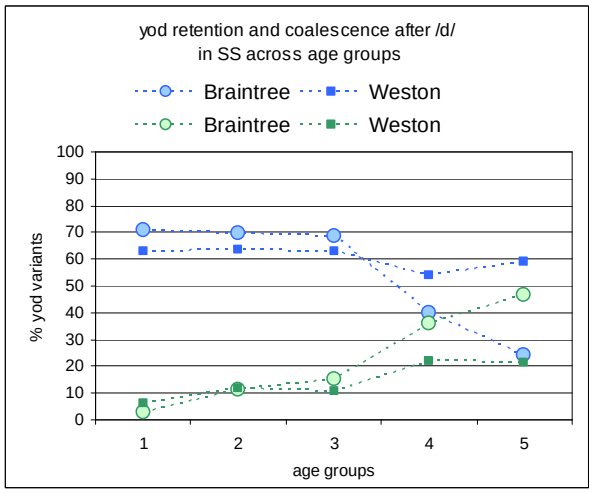


The distribution of coalescence after /t/ in unstressed syllables is analogous to that of /s/ in SS above: coalescence increases with age in Weston and decreases in Braintree, so that the highest level of coalescence after /t/ in unstressed syllables occurs among Braintree informants under 45 and Weston informants over 46. Coalescence with yod decreases with age in Weston and increases in Braintree but even the oldest Weston informants have more of this realisation than in Braintree (diagram left).



Even though the distribution of retention and coalescence after /t/ and /d/ in stressed syllables shows a similar trend in both towns, it is interesting to note that while informants under 45 in both towns have roughly the same amount of retention, Braintree informants over 46 have 10–26% more retention than Weston informants of the same age. Coalescence after /t/ and /d/ in stressed syllables has exactly the same development as in unstressed syllables after /t/ mentioned above: it occurs most frequently among Braintree informants under 45 and Weston informants over 46 (diagrams below). The difference in the use of coalescence between Braintree and Weston informants over 61 comes to 27% after /t/ and 35% after /d/.





All these examples confirm the distribution of coalescence and yod dropping from figures 6.19 and 6.20: these variants are more common among informants under 45 in Braintree than in Weston and among informants over 46 in Weston more than in Braintree. It is also interesting to observe the rapidly increasing tendency to use coalescence among younger Braintree informants, e.g. after /t/ and /d/, where in a space of about 50 years the change amounts to 45% and 47% respectively in Braintree. This contrasts strongly with Weston, where coalescence drops by only a few per cent among older adults and otherwise is rather constant. There is a clear trend in Weston to retain yod more after /s/ and /l/ in stressed syllables among informants under 21 compared to the older generations. The difference across the generations amounts to 22% after /s/ and 28% after /l/. In contrast, the results suggest a slow, gradually increasing tendency of yod dropping in Braintree after /l/. However, it seems that the trend to drop yod after /s/, after peaking among young adults, is now decreasing across the younger generations. This is slightly surprising as one might have assumed that the behaviour of the younger adults indicates a likely future trend.

6.3.3 Yod variants across age and sex

The difference of any yod realisation between men and women is no more than 3% in Weston and Braintree. That is why the gender comparison is presented across age groups where the differences between males and females are slightly bigger. The following diagrams show every yod realisation in stressed and unstressed syllables separately. There does not seem to be any general pattern in gender differences between Braintree and Weston. The greatest gender difference is in the use of retention among Braintree adolescents, where males have 12% more retention than females but this does not seem to indicate a more general tendency as this pattern is not replicated in Weston, where male retention is only 1% more than female. However, the tendency for Braintree female adolescents not to retain yod could be symptomatic of a more general shift away from retention. Gender differences are overall greater in stressed than in unstressed syllables, where they are mostly minimal and do not exceed 6%. Yod retention is most often heard among Braintree males over 61 in both stressed (48%) and unstressed syllables (45%), and least among Braintree girls and female adolescents. Coalescence with yod is most frequent among Weston boys in both stressed (14%) and unstressed syllables (18%), and least among Braintree boys. Coalescence occurs most often among Braintree girls and female adolescents in both stressed (37% and 40%) and unstressed syllables (56% and 57%), and least among Braintree men and women over 61. Yod dropping is most frequent among Braintree boys in both stressed (41%) and unstressed syllables (15%) and least among Weston children and adolescents in stressed syllables and among Braintree older adults (46–60) in unstressed syllables.

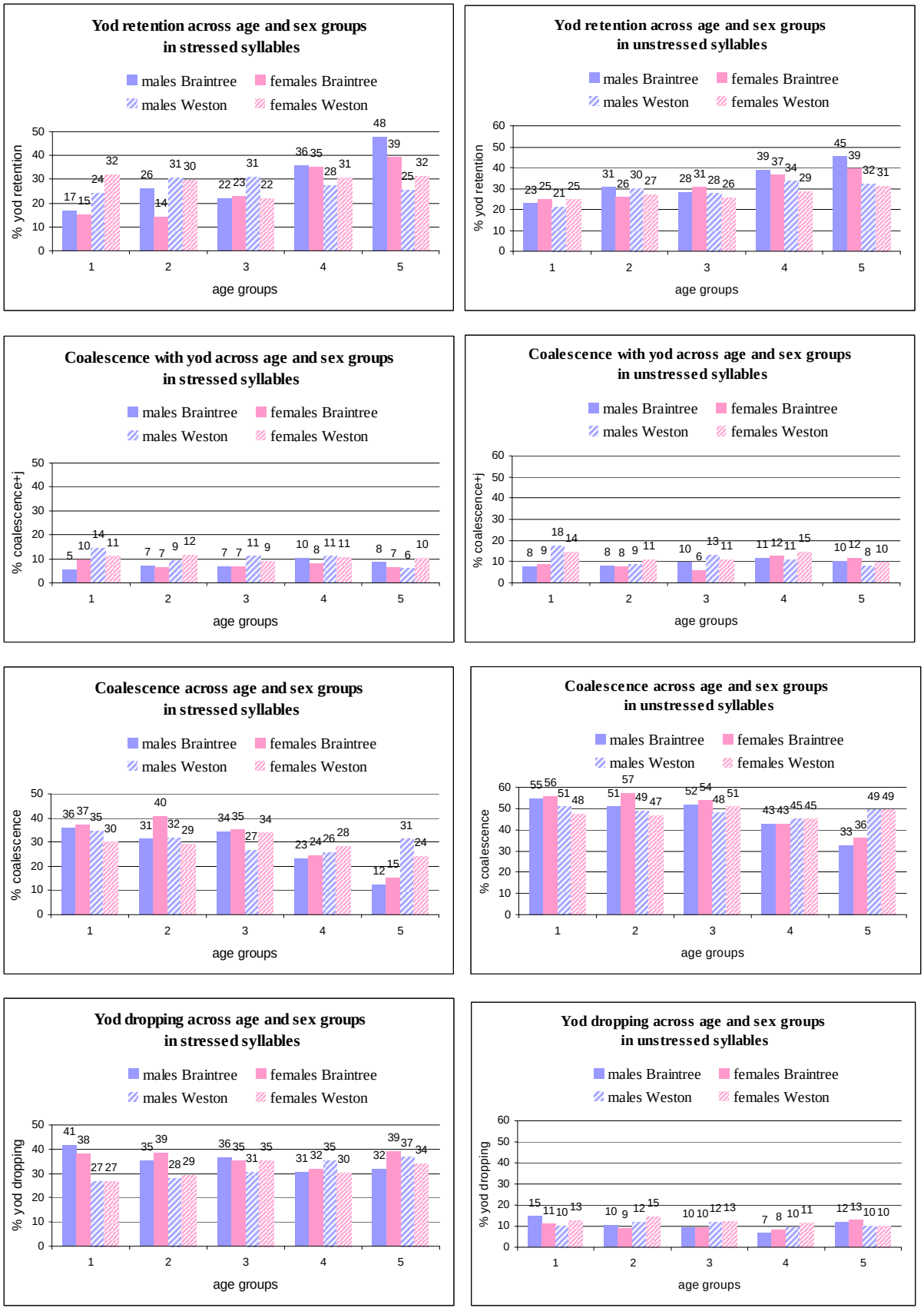


Fig. 6.21 Yod variants across age and sex groups separately in stressed and unstressed syllables

6.3.4 Yod variants across mental urbanisation (MENURB)

Mental urbanisation is significant for the pronunciation of yod in Braintree overall but in Weston only in a few instances. The yod index for stressed syllables in reading passages is significant in both locations. In Braintree informants with a positive to neutral attitude to the urban lifstyle have most yod dropping variants (1% r = 0.306, $r_{RP\ SS\ index}$ = -0.356), while informants with a negative attitude to the urban lifestyle omit yod in Weston (5% r = 0.215, $r_{RP\ SS\ index}$ = 0.239) (Fig. 6.22). The distribution of yod retaining and yod dropping variants in MENURB group 3 (neutral to negative attitude to the urban lifestyle) is very similar in both towns. As for individual yod realisations, informants with a positive attitude to the city lifestyle in Braintree have more coalescence than informants with a negative attitude to the city lifestyle, who have more retention in both styles and stress environments. The former ones also have more yod dropping in stressed syllables (Fig. 6.23). In Weston, informants with a positive attitude to the city lifestyle have more retention in stressed syllables in the more careful style than informants with a negative attitude to the city lifestyle, who have more dropping (Fig. 6.23). There is no significant correlation of mental urbanisation with coalescence in Weston.

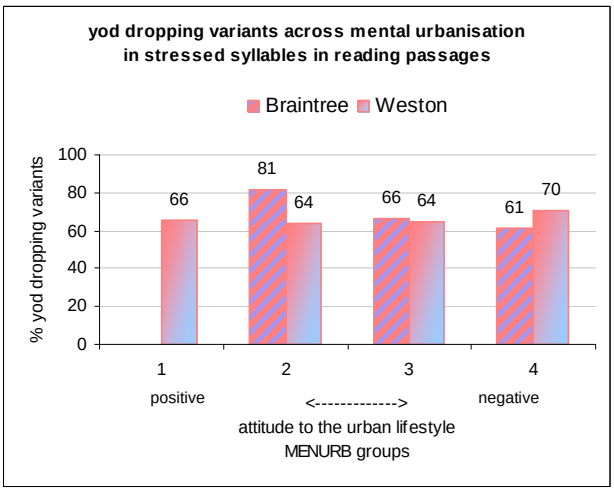


Fig. 6.22 Yod dropping variants across mental urbanisation in stressed syllables in reading passages

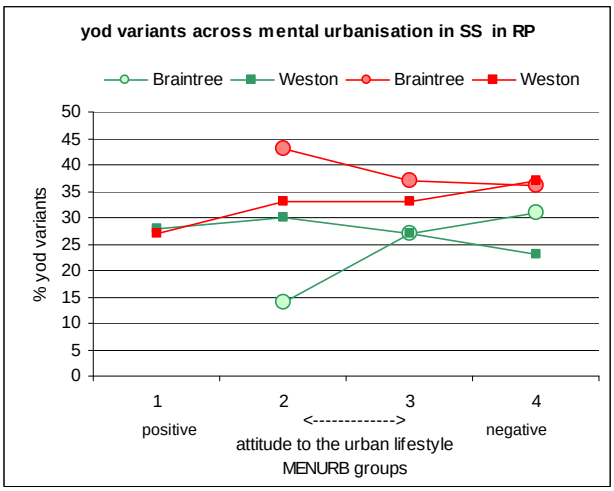


Fig. 6.23 Yod retention and dropping across mental urbanisation in SS in RP

However, it can also be seen that the amount of yod dropping of Weston informants with a negative attitude to the urban lifestyle (group 4), which is the highest of all MENURB groups in Weston, equals that of Braintree informants, which is the lowest of all MENURB groups in Braintree. The overall variety of yod distribution across MENURB groups is greater in Braintree.

6.3.5 Yod variants across socio-economic class (SOCEC)

Socio-economic class is not significant for the choice of yod pronunciation in general in either town. Coalescence and dropping correlate significantly with SOCEC in Braintree and according to multiple regression there is some correlation of dropping with SOCEC in the less careful style in Weston (Fig. 6.24).

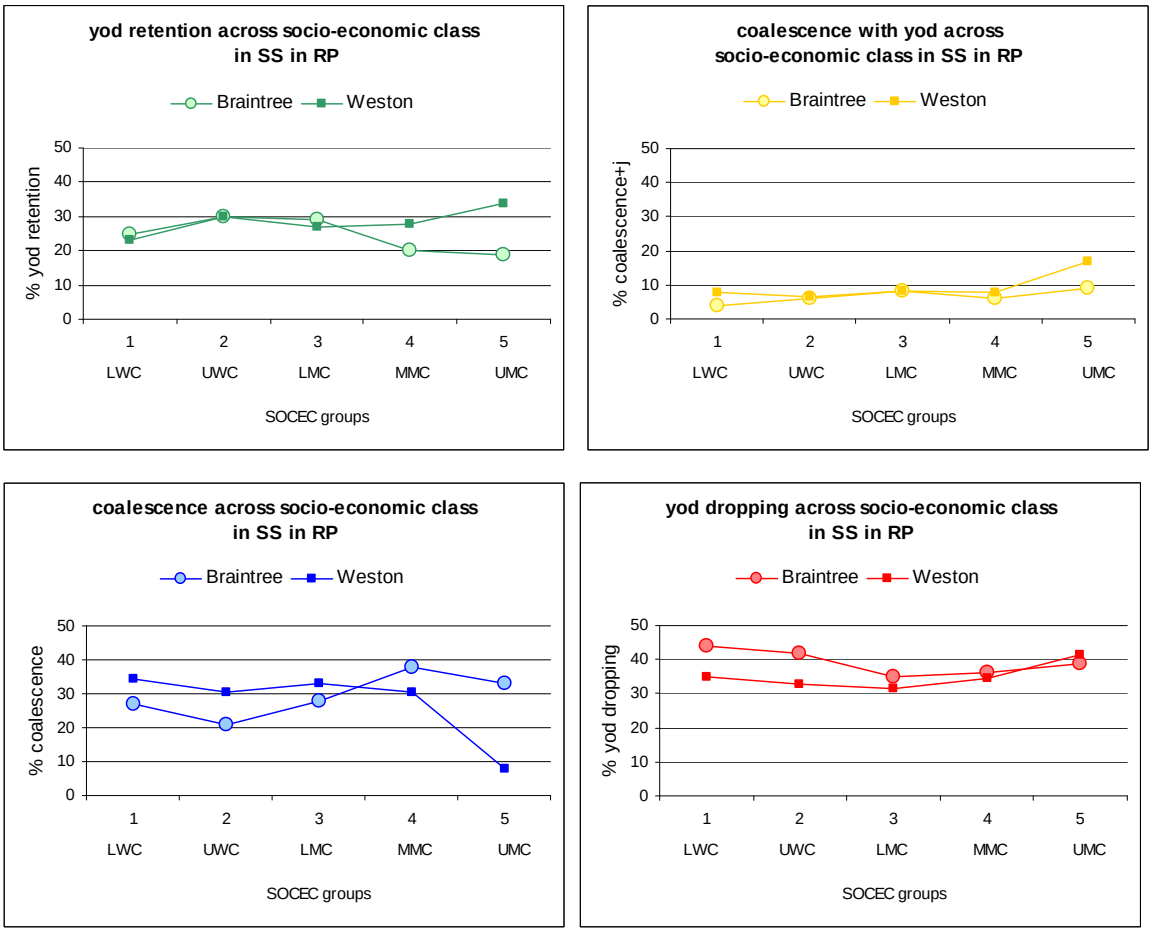


Fig. 6.24 Yod variants across socio-economic class

All four yod variants follow a similar distribution across the SOCEC groups in both towns. The upper-middle class group is not quite representative because there are only two informants in Braintree and one in Weston. Weston MMC and UMC informants have more retention than Braintree informants at the expense of coalescence. Braintree working class informants have more yod dropping than Weston working class informants, who have more coalescence instead. The use of yod retention among LWC, UWC and LMC, coalescence with yod in general, and yod dropping among middle class in stressed syllables in the less careful style is very similar in both locations.

6.3.6 Yod variants across education

Education is a highly significant factor for yod pronunciation in all indices in Braintree but only for the unstressed-syllable yod index in the less careful style in Weston. However, some yod variants are significant in all contexts but the trends are most prominent in reading passages (Fig. 6.25): yod retention increases and yod dropping decreases with the level of education in Braintree, and coalescence decreases with the level of education in Weston. Retention in unstressed syllables increases with education in Weston. These statistical results are not clearly visible when informants are divided into the original six groups but there are indications of the trends mentioned above when some of the groups are combined, as in figure 6.25.

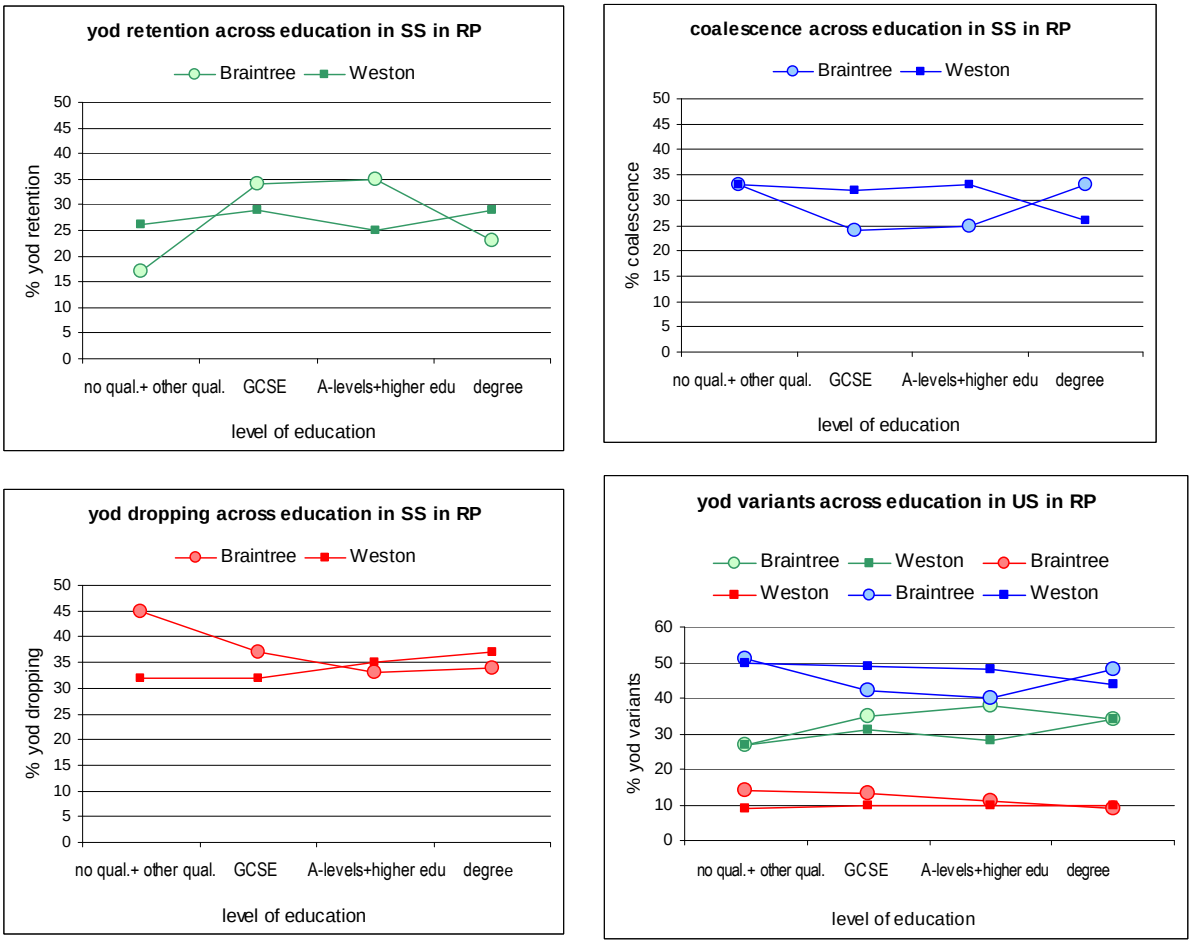


Fig. 6.25 Yod variants across education

Informants with the lowest level of education in Braintree have 13% more yod dropping in stressed syllables than in Weston, but their use of coalescence equals that of Weston informants. The amount of coalescence among informants with GCSE, A-levels and higher

education is 8% higher in Weston. On the other hand, Braintree graduates have more coalescence at the expense of retention. There is a similar pattern in unstressed syllables, only the differences are much smaller: more yod dropping among Braintree people with no or little qualification, and more coalescence at the expense of retention among people with intermediate education in Weston.

6.3.7 Yod variants across social networks (SOCNET)

There is no significant correlation between yod pronunciation and social networks in Braintree or Weston. However, multiple regression revealed a significant correlation in stressed syllables in Braintree: yod retention and coalescence with yod increase while coalescence and yod dropping decrease with more frequent social ties with local people. This development cannot be seen in the following figure, which shows that the distribution of yod variants in Braintree and Weston is very similar and corresponds to the overall differences of yod distribution between the two locations. The greatest difference occurs in the use of coalescence among informants with no social ties, who have more coalescence in Braintree.

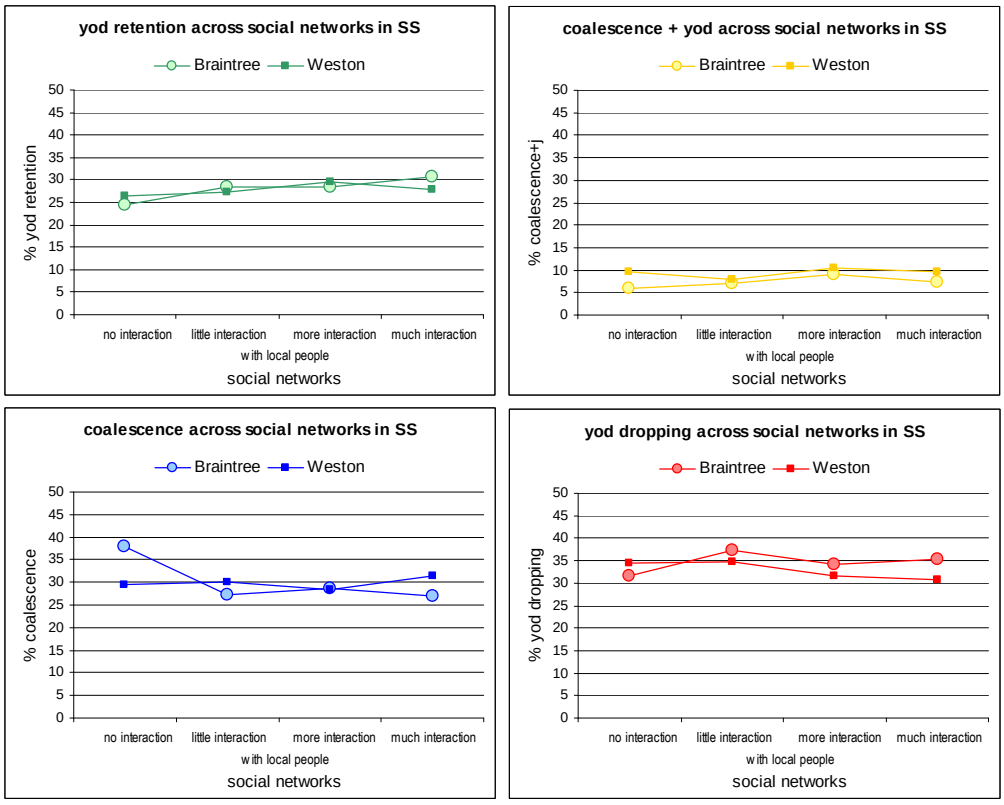


Fig. 6.26 Yod variants across social networks in stressed syllables

6.3 Self-reporting

The self-evaluation pronunciation questionnaire shows various degrees of over/under-reporting and/or a lack of yod salience. Paul Kerswill (private communication 2008) explains: "Something is defined as salient because people notice it." "Salience is in the ears of the individual" and "depends on people's life experiences". However, David Britain (private communication 2008) admits that salience "is used regularly without usually making it clear who it is salient to". Salience of phonetic features is claimed to occur in "prosodically prominent positions" (Kerswill & Williams 2002:89), which is here primarily word-initially in stressed syllables and possibly also word-medially in stressed syllables. (For a discussion and a model of salience see Kerswill & Williams 2002:83–106.) Nevertheless, the results in both towns tend in the same direction: *suitable, enthusiasm* and *presumably* are under-reported while *Tuesday, during* and *situation* are over-reported, and no major differences between males and females in general are detected. As the choice for *news* was either *nooz* or *nyooz*, the assumption is that informants who say [ɲuːz] most likely chose the yod dropping variant [nuːz] and informants who say [ɲɪuːz] most likely chose the yod retaining variant [nɪuːz], in which case the self-reporting in both towns is quite accurate. The self-evaluation varies only in *lucrative*, which is over-reported in Braintree and under-reported in Weston. Over-reporting tends to indicate a strong awareness of a standard that should be conformed to. Under-reporting, on the other hand, suggests that forms are not even perceived as salient. Perception of a form as salient is a necessary condition for its stigmatisation. However, even if yod dropping in *suitable*, *enthusiasm* and *presumably* is regarded as salient, it seems that it is no longer stigmatised. (This is based on the assumption that informants are not failing to make a purely acoustic distinction.) David Britain says that stigmatisation is "a complex and poorly understood concept" and explains, "people in southern Britain have been so penetrated by the ideology of the standard that if you raise many non-standard features with them, they have become almost 'programmed' to say they are bad etc. I am sure yod dropping would fall into this category." Judging by the BBC newsreaders, David Britain suspects that coalescence is not stigmatised. Both Britain and Kerswill agree that yod dropping is probably not salient among heavy droppers. Britain suggests that people might be aware of coalescence in words like *tune* and *duke* but not in *news*. Kerswill supposes that yod assimilation is not "particularly salient" in general.

7. Conclusion

The aim of the study was to find out which factors might influence the variation in yod pronunciation after the alveolar consonants /t, d, n, s, z, l/ and after the dental consonant /θ/ before /ʊ/ and /u:/. The results of the two case studies confirmed that preceding phonological context is a crucial factor in the choice of yod pronunciation, even though lexical factors also play a critical role; that other linguistic factors also play a part in it; and that some social factors are very significant in Braintree while, surprisingly, hardly any are significant in Weston-super-Mare.

I would now like to provide answers to the research questions formulated in chaper 1:

1. Does the pronunciation of yod depend only on the preceding phonological context?

No, but the preceding context together with stress are the deciding factors.

2. Could other linguistic factors influence the choice of yod realisations?

Yes, but it is impossible to say with certainty to what extent other linguistic factors are influential, as it is technically not feasible to separate individual linguistic aspects such as the position of yod in a word and various lexical properties, including parts of speech or word frequency because above all there are not enough yod words to match all the criteria in order to be comparable. In general, articulations tend to be longer in initial contexts and stressed syllables, so *Tuesday* is more likely to be pronounced with retained yod than *situation*, and reduced forms are often found in function words, so *due* and *during* are more likely to be coalesced than *dew* and *duty*. This was in fact confirmed in both studies. In addition, common words are typically produced faster and less clearly than rare ones. This, however, was not confirmed, as there was no significant correlation between yod pronunciation and word frequency in general. Nevertheless, if words of different frequencies with the same preceding context and from the same syllable group are compared, a slight tendency towards reduction can be seen. The more frequent words have less retention and more coalescence and sometimes also more yod dropping than the less frequent words, e.g. *mature – attuned, situation – intuition, education – duration, assume – pursued, new – news, nuclear – newcomer* (Tab. 7.1).

Tab. 7.1 Yod pronunciation across word frequency in words with similar characteristics

word	preceding context	syllable group	word frequency	location	retention	coalescence + j	coalescence	dropping
mature	t	4	1873	Braintree	**12**	8	**80**	0
				Weston	3	5	92	0
attuned	t	4	113	Braintree	**27**	19	**50**	4
				Weston	20	47	33	1
situation	t	8	15725	Braintree	**1**	8	**91**	0
				Weston	1	1	97	1
intuition	t	8	421	Braintree	**7**	8	**69**	16
				Weston	6	3	82	9
education	d	8	25858	Braintree	**1**	4	**89**	6
				Weston	0	2	94	4
duration	d	8	1822	Braintree	**21**	14	**62**	3
				Weston	6	10	81	3
assume	s	4	4052	Braintree	**60**	7	**16**	**17**
				Weston	58	1	16	25
pursued	s	4	1499	Braintree	**77**	5	**5**	**13**
				Weston	71	3	3	23
new	n	1	124227	Braintree	**45**	19	**22**	**14**
				Weston	43	22	20	14
news	n	1	14174	Braintree	**56**	19	**14**	**11**
				Weston	60	23	8	9
nuclear	n	3	8109	Braintree	**23**	7	**47**	**23**
				Weston	36	11	40	13
newcomer	n	3	496	Braintree	**30**	12	**39**	**19**
				Weston	32	21	33	14

3. Do any social factors influence the choice of yod realisations?

Yes, age and mental urbanisation proved to be significant factors in Braintree, but no social factor in general showed a consistent pattern in Weston. In both cases, however, social factors go hand in hand with the crucial linguistic factors in the first place. The most frequent source of phonological variation is generally considered to be geographical and social background. In the case of yod, stress and preceding context need to be considered, too. The following tables (7.2 and 7.3) show a comparison between the yod pronunciation described in phonetic handbooks (Tab. 1.1), Received Pronunciation (Tab. 1.2 and 1.3) and the two case studies. The most frequent yod variants in Braintree are the same as in Weston. In general the most frequent yod variants from the study compare well with the description in phonetic handbooks both in stressed and unstressed syllables.

In stressed syllables, coalescence after /t/ and /d/ in the study corresponds to Cruttenden's (2001) description of "changes well-established" in General RP. According to the phonetic handbooks in chapter 2.1, the pronunciation in all other preceding contexts, i.e. /n, l, s, z, θ/, varies. Nevertheless, the yod realisation preferences mentioned there agree with the results of

the study. Yod retention is preferred after /n, z, θ/ and yod dropping after /s, z/. This cannot be said about the RP pronunciation preferences in Ramsaran (1990), Cruttenden (2001) and Altendorf (2003).

Tab. 7.2 Comparison of yod pronunciation in stressed syllables in handbooks on phonetics, in Received Pronunciation and in the two case studies

preceding context	phonetic handbooks	Received Pronunciation	Braintree*	Weston*
t	(1)	(1), (3)	(3)	(3)
d	(1)	(1), (3)	(3)	(3)
n	variation, (1), (4)	variation, (1), (4)	(1)	(1)
l	variation, (4)	variation, (1), (4)	(4)	(4)
s	variation, (4)	variation, (4)	(4)	(4)
z	variation, (1)	variation, (4)	(1)	(1)
θ	variation, (1)	variation, (4)	(1)	(1)

* the most frequent yod variant

In unstressed syllables, coalescence after /t/ and /d/ in the study corresponds to Cruttenden's description of "changes almost complete, typical of the large majority of speakers of General RP" (2001). All yod realisations in unstressed syllables most frequently heard in the two towns agree with the observations in the literature.

Tab. 7.3 Comparison of yod pronunciation in unstressed syllables in handbooks on phonetics, in Received Pronunciation and in the two case studies

preceding context	phonetic handbooks	Received Pronunciation	Braintree*	Weston*
t	(1) – cs, (3)	(1), (3)	(3)	(3)
d	(1) – cs, (3)	(1), (3)	(3)	(3)
n		(1)	(1)	(1)
l	(1)		(1)	(1)
s	(1) – cs, (3)	(1), (3)	(3)	(3)
z	(1) – cs, (3)	(3)	(1)	(1)
θ			(1)	(1)

* the most frequent yod variant, cs = careful speech

Tables 7.2 and 7.3 suggest that neither town is a typical yod-retaining area any more. But neither is Received Pronunciation a fully yod-retaining accent any more. Braintree and Weston could at most be described as yod-retaining areas after /n, z, θ/ in general, and after /l/

in unstressed syllables. The yod-retaining pronunciation in Braintree still applies to *new* and *dew*, but not to *Tuesday*, *tune*, *suit* and *suet*, as it is marked in the linguistic atlases which are mostly based on the *Survey of English Dialects* (*SED*) (chapter 3.4). *Tuesday* and *tune* do not retain yod any longer in Weston but the other words correspond to the linguistic atlases: retention in *new*, coalescence in *dew* and dropping in *suit* and *suet*. Nevertheless, this development, away from retention and towards coalescence or dropping, was expected. Based on the hypotheses in chapter 3.4, it has been confirmed that

- there is more coalescence in unstressed syllables, e.g. *intuition*, than in stressed syllables, e.g. *tuna*, (but not more yod dropping).
- there is more coalescence in syllable groups 2, 3 and 5 than in syllable group 1, except for group 5 in Braintree, (but not more yod dropping). In other words, coalescence is least frequent in one-syllable words, e.g. *tune*, *dew*, *news*.
- there is more coalescence and dropping in syllable group 8 than in syllable group 7. The reduced forms are more common in words where yod occurs before a stressed syllable, e.g. *intuition*, compared to words where yod occurs after a stressed syllable, e.g. *statue*.
- there is more coalescence the longer the word is in the 1–3 group pattern (but not more yod dropping). Longer words with yod in the main stress in the first syllable tend to be coalesced more often, e.g. *nuclear* has more coalescence than *neutral*, which has more coalescence than *news*.
- words from syllable group 6, yod in unstressed syllable separated from the main stress by another syllable, behave more like words in stressed rather than unstressed syllables, e.g. the distribution of yod variants in *new* and *tune* is very similar to the distribution in *avenue* and *attitude* respectively.
- there are more non-standard forms in reading passages than in the word list.
- older people and 'traditionalists' (high MENURB score) have more retention in Braintree (but not in Weston).

It is possible to compare the amount of coalescence in five words from Wells's *LPD Pronunciation Preference Survey 1998* with the case studies (Tab. 7.4). Wells's survey clearly shows a decreasing amount of coalescence with age in all five words. The amount of coalescence in the case studies is much higher in all age groups. Nevertheless, the Braintree results for *tune*, *during* and possibly *schedule* show the same development: the younger the

speakers, the more coalescence they have. In Weston, however, no consistent pattern across age groups can be seen. The trend towards increasing coalescence after /t/ and /d/ with age has also been detected in Ipswich and on Mersea Island, which used to be typical yod-dropping areas (see chapter 2.4). The yod dropping-figures from the studies by Britain et al. (2008) are not really comparable because neither Braintree nor Weston are typical yod-dropping areas.

Tab. 7.4 Comparison of the amount of coalescence (%) across age between *British English Pronunciation Preferences* (PPS) (Wells 2000) and the case studies

word	place / age	under 25	25– 44	45– 64	over 65
perpetual	PPS	57	52	32	23
	Braintree	100	100	100	100
	Weston	98	100	100	95
situation	PPS	60	43	25	16
	Braintree	90	91	94	90
	Weston	96	100	100	93
tune	PPS	61	42	22	10
	Braintree	86	74	41	17
	Weston	57	47	41	54
schedule	PPS	35	23	13	8
	Braintree	93	94	82	59
	Weston	98	100	84	85
during	PPS	58	36	23	15
	Braintree	89	80	55	41
	Weston	99	89	83	82

To summarise the most important findings from the two case studies it can be said that the **variation of yod pronunciation is best described across the preceding context. In stressed syllables, yod retention is the most frequent yod realisation after /n, z, θ/, coalescence after /t, d/ and yod dropping after /s, l/. In unstressed syllables, yod retention occurs most often after /n, l, z, θ/ and coalescence after /t, d, s/.** Further general points can be made. There is more dropping in stressed syllables and more coalescence in unstressed ones. More coalescence or dropping tends to occur in reading passages compared to the word list. When yod occurs in a word-initial position in a stressed syllable, the tendency towards coalescence increases with the length of the word (1–3 group pattern), e.g. *stew – stupid – studio, new – neutral – nuclear*. The amount of yod retention in words with yod in the main stress on the first syllable (groups 1–3), one-syllable words with yod in the main stress (group

1), e.g. *due*, in particular, is very close to that of words with yod separated from the main stress by a syllable (group 6), e.g. *residue*. Yod tends to be dropped or coalesced more often before than after a stressed syllable (group 7 vs. 8), e.g. *situation* vs. *virtue*, *education* vs. *module*. This finding is partly connected with the following context: more yod-retaining variants, coalescence with yod in particular, occur in word-final and open syllables and therefore more yod-dropping variants, particularly yod dropping, are present in word-non-final and closed syllables, e.g. *issue* vs. *peninsula*, *menu* vs. *January*. **Age appears to be the most influential social factor: yod retention increases while coalescence decreases with age in stressed and unstressed syllables in Braintree, and yod dropping in stressed syllables increases with age in Weston. Mental urbanisation and education are further significant factors, but only in Braintree. Yod retention increases with a negative attitude to urban lifestyle or values and with a higher level of education. In contrast, coalescence and dropping increase with a positive attitude to urban lifestyle or values and with lower levels of education. Sex, socio-economic class and social networks do not show any systematic pattern, even though some are significant in particular contexts in both towns.**

The evidence from this study shows that coalescence now predominates after /t, st, d/. It seems likely that the other yod realisations will continue to co-exist but in Braintree, for example, coalescence has reached a plateau at around 80%. This is such a high figure that it seems reasonable to claim that the change has occurred. This is confirmed by Cruttenden's (2001) observation about General RP, which suggests that coalescence after /t/ and /d/ even in stressed syllables is no longer stigmatised. David Britain (private communication 2008) refers to a student's

> anecdotal experience of many years of going to night-clubs to dance. Apparently a few years ago, when a really good tune was played, people would make a sign to each other of the letter T to denote 'good tune'. Apparently recently they've changed and now make the letter C with their hands, because a 'good chune' is being played (and apparently this is widespread across the south-east as many of the audience recognised it!). This anecdote suggests to me that coalescence/palatalisation is probably either not stigmatised or has covert prestige among young people as a symbol of youth language. [This example does not necessarily suggest that coalescence in general has salience because] perhaps the pronunciation of that word alone is in some way salient/iconic.

Kroch (1978:20 quoted in Chambers 2003:255) argues that "non-prestige dialects tend to be articulatorily more economical than the prestige dialect." Labov (1972:249 quoted in Chambers 2003:255) rejects this view, stating "there is no foundation for the notion that stigmatised vernacular forms are easier to pronounce." While it would be difficult to postulate ease of pronunciation as an indispensable feature of phonetic change, the data presented here would seem to show that the form that is easier to articulate is the innovative feature which tends to prevail after /t, st, d, s, l/ and has become an established option even in General RP, e.g. /ɪʃuː/ replaces /ɪsjuː/.

The Weston results are in many cases rather inconclusive and do not show clear phonetic trends. As might have been expected, given Braintree's proximity to London, this location displays several features which are potentially indicative of current and future phonological developments.

The experiment on self-reporting of yod pronunciation (see 4.6 and 5.6) confirmed Foulkes' observation that "we know rather more about how variation is manifested in speech production than about how variation impacts on speech perception" (Foulkes 2006:1). None of the informants could guess what I was studying after reading the short texts and the list of words. Some informants could not even hear the difference between the yod variants when doing the experiment in which they were asked to choose the yod variant they thought they normally used. However, most informants did not seem to have a problem with this decision, even if they had not thought of their pronunciation of yod before. Several informants were excited about the subject and told me their opinions on yod pronunciation and other features currently undergoing change. This experiment shows that the salience of yod pronunciation varies. It is quite possible that yod pronunciation is more salient in more frequent words, especially in initial positions, but it is also likely to be subject to lexical constraints such as different parts of speech and speakers' register. Therefore it is not even clear whether the changes in yod pronunciation are "the result of physical (phonetic) or cognitive (phonological) factors" which Foulkes regards as "one of the most interesting and important questions to emerge from the study of variation" (Foulkes 2006:1). The ease of coalesced or yodless pronunciation is surely a physical factor which speakers might unconsciously implement. On the other hand, social pressure can lead to a conscious choice of a particular pronunciation, whether the speaker adjusts to a conservative environment or to the local vernacular. The newly introduced yod variant, coalescence with yod (2), could be seen as a

combination of both. The palatalised articulation of the consonant requires less effort than the cardinal consonant followed by yod, and the presence of yod makes it less noticeable, if at all, that an innovative form has been used. The perception of this variant might depend on the degree of palatalisation as it tends to vary across a wide range.

The study shows that change is in progress in yod pronunciation in Braintree and Weston, even though it seems to be manifested on slightly different levels. Both towns have overall the same distribution of yod variants and follow the same linguistic principles in style, stress and syllable-stress groups, but vary in some preceding contexts and most importantly, and rather surprisingly, they vary in the significance of social factors in yod pronunciation. It was only during the analysis of the recordings that I realised it was necessary to create a fourth variant of yod pronunciation, i.e. coalescence with yod. This variant has not been explicitly mentioned in the literature, let alone studied empirically. I could not find any other satisfactory solution as the yod is retained but, at the same time, the preceding consonant is coalesced and in the case of /t, d, s, z/ (and in my native phonemic system also in the case of /n/) changes into a different phoneme, so it does not feel right to add it to either retention or coalescence. It shows that there can be a very smooth, almost imperceptible transition between retention and coalescence among some speakers. With regard to what and how exactly we want to classify a particular set of data, coalescence with yod can easily be added to retention and be part of the 'yod retaining variants' or to coalescence and become a 'coalesced variant'. It could possibly also qualify for a non-standard or non-RP yod variant, but it should not be included among 'yod-dropping variants'. Coalesced alveolars followed by yod are easier to pronounce than cardinal alveolars followed by yod, and at the same time are more acceptable than the yodless variants, as even conservative speakers may be more inclined to deviate from the standard when the status of the standard is clearly being questioned and eroded. Since I hope that parts of the data in my study will be of use to other researchers, I decided to work with four yod variants, and it is then up to future users to decide if they want to keep it separate or combine it with another variant. For the same reason, detailed information is provided for all possible categories and individual words.

It would be interesting to collect the same data in several other towns with similar characteristics to see whether the linguistic patterns can be confirmed again, but most of all, whether any of the social factors, age, mental urbanisation and education especially, will prove significant and show the same pattern as in Braintree, or whether the insignificance of

social factors will show that the Weston results are a more common model. Other potential areas for further research into yod pronunciation include the motivation behind intra-speaker variation, the development of lexical diffusion, and attitudinal and empirical studies of yod perception and recognition.

Phonological variation is not only important for linguistic theory but it also has implications for areas beyond mainstream linguistics. Speech technology has long been used as an assistive tool as it enables people with differing disabilities, e.g. visual or motor impairments, to do work they could otherwise not do. Speech technology is a major issue for many industries which are trying to attract their customers by offering them comfort, convenience and efficiency with the purchase of indispensable products such as car navigating systems, telephone communications or computer software. The two processes are speech synthesis and speech recognition. In speech synthesis, in other words text-to-speech systems, a human voice, created with the help of speech synthesizer, reads out written works. The database is created either by a dictionary-based approach, where every entry (a word or a phrase) is recorded as a whole, or a rule-based approach, where pronunciation rules are applied to produce words from recorded sets of individual phonemes on the basis of spelling. The advantage of the first approach is a more natural sound at the expense of a limited database content and larger memory demand. The advantage of the latter approach is unlimited lexical input and efficient memory utilisation at the cost of sometimes unnatural sound and possible pronunciation mistakes, especially in unusual words. These approaches are often combined to produce a satisfactory result. In the dictionary approach, the speaker may or may not stick to the pronunciation suggested by the dictionary but in the rule-based approach, the pronunciation of the phoneme sequences needs to be programmed. Both approaches offer the possibility of deciding if and to what extent a particular language change will be applied. The software Natural Readers has a male (M) and a female (F) UK English Natural Voice, whose pronunciation of yod words varies. Yod is retained (but the preceding context sometimes palatalised) after /t, d, n/ in initial positions, e.g. *Tuesday, tune, due, duty, news, duration*, with the exception of *during* (F) and *new* (M), which are coalesced without yod. M pronounces *schedule* and *issue* as /ʃeʤuəl/ and /ɪʃu:/, while F says /ʃeʤjuəl/ and /ɪʃju:/. They both retain yod in *presumably* but F drops it in *presume* unlike M. The voices vary also after /s/ and /θ/. M drops yod in *enthusiasm, enthusiastic, suit* and *suitable* while F retains yod in all of these words. The new SVOX UK female voice for car navigating systems also uses

all four yod variants. This voice keeps yod even in *situation* compared with Natural Voices, which both have coalescence preceded by a glottal stop. The SVOX voice retains yod also in *during, tuna* or *neutrality*. It has coalescence with yod in *module* and *menu*; coalescence without yod in *issue, schedule* and *statue*; and drops yod in *suit*. These examples, which are the male and female model UK voices for well-evaluated text-to-speech software and a professional voice for car navigation, clearly show the variability of yod pronunciation. The speech recognition technology, voice to text, is very important in health care and the military. It also enables people with motor impairment to operate a computer. Apart from the initial pronunciation training to adapt the program to the user, the technology requires speech characteristics that match the training data and quiet surroundings to transcribe the speech with a high recognition rate. In a little experiment with a US *Dragon Naturally Speaking* software I have discovered that it always recognizes *Tuesday* whether it is pronounced /tjuːzdeɪ/, /ʧiuːzdeɪ/, /ʧuːzdeɪ/ or /tuːzdeɪ/ separately or embedded in different contexts. "The mistakes that the program makes tend to be ones in which a less likely word sounds like a more likely word", says the user, a former TV news reader from the US. However, he points out a problem with *new*: "It does have issues whenever I have to do an initial training with my pronunciation of *new*. I pronounce it 'nyoo' rather than 'noo'. So the computer always goes through a period of typing 'you' instead of 'new'." Although the speech recognition software accepts a range of pronunciations, some users, especially with heavily accented speech, will not reach a high recognition rate.

Innovative change connected with yod pronunciation could be disseminated if such a change is incorporated in ELT methods. Teachers are often first among those who notice innovative pronunciation features. Many teachers, especially non-native speakers of English, were wondering years ago whether they should teach Estuary English or perhaps another variety of English. Even though the textbooks still tend to use RP as a pronunciation model, students of English usually acquire, whether consciously or not, pronunciation they hear around them and that appeals to them, and it is only a question of time before some of the innovative forms for the first lexical sets appear in dictionaries and textbooks, as is the case with e.g. *issue* with two pronunciation variants /ˈɪʃuː/ and /ˈɪsjuː/ or *situation* and *suit* with only one, the innovative variant /ˌsɪtʃuˈeɪʃ(ə)n/ and /suːt/ in the *Macmillan Online Dictionary*. For comparison, the *Cambridge Learner's Dictionary* online has the innovative forms, coalescence and dropping for *issue* and *suit* respectively, but keeps the conservative yod in

situation, while the *Oxford Advanced Learner's Dictionary* online has /ˌsɪtʃuˈeɪʃn/ and both forms of *issue* and *suit*, the innovative ones in the first place. In other words, it provides further evidence of change in progress in yod pronunciation, even though it will take a few decades before we start teaching 'Chewsday'.

Changes in pronunciation, together with lexical, grammatical and other aspects, are a natural development in language, which are sometimes recognised quickly, sometimes with a time lag. Researchers are always attempting to identify the principles underlying language change. In these efforts, sociolinguistics, a relatively new branch of linguistics, has made a valuable contribution, by intuitively realising and then demonstrating that intra-linguistic factors cannot fully account for all aspects of language change. Social factors such as class consciousness, attitudes, age and gender differences also impact on language change, including the pronunciation of yod. Although such factors are often infuriatingly diffuse and complex and methodological problems remain unresolved, it does not invalidate this approach or dispense researchers from applying it.

Appendix 3.1 Word list

1.	January	February	March	April
2.	right	suitable	appropriate	fitting
3.	tuna	luce	sewin	dory
4.	ripe	mature	mellow	seasoned
5.	statue	sculpture	figure	statuette
6.	silly	stupid	absurd	ridiculous
7.	film	actor	director	studio
8.	morning	dew	grass	sun
9.	during	while	within	throughout
10.	oak	acorns	leaf	deciduous
11.	chapter	unit	module	part
12.	accuse	sue	charge	indict
13.	murder	killing	suicide	manslaughter
14.	island	isle	peninsula	archipelago
15.	sensuality	physicality	animality	voluptuousness
16.	information	news	data	facts
17.	impartial	uninvolved	neutral	unbiased
18.	feeling	intuition	inkling	hunch
19.	consecutively	chronologically	numerically	alphabetically
20.	salute	greeting	welcome	salutation
21.	excitement	enthusiasm	eagerness	keenness
22.	Latvian	Lithuanian	Estonian	Ukrainian
23.	probably	presumably	supposedly	in all likelihood
24.	licence	expiry	renewal	validity
25.	income	revenue	gain	return
26.	lunch	menu	restaurant	waiter
27.	Franciscan	Dominican	Jesuit	Cistercian
28.	summary	resumé	abstract	outline
29.	foolishness	brainlessness	stupidity	dullness
30.	Sunday	Monday	Tuesday	Wednesday
31.	atomic	nuclear	fissile	fusion
32.	temptation	inducement	draw	lure

33.	followed	pursued	chased	hunted
34.	valuable	precious	expensive	priceless
35.	quantities	volumes	amounts	masses
36.	evoked	produced	induced	caused
37.	time	length	period	duration
38.	replacement	substitute	reserve	deputy
39.	establish	create	found	constitute
40.	plane	steward	crew	captain
41.	decrease	diminish	reduce	lower
42.	duty	obligation	requirement	necessity
43.	fit	suit	match	become
44.	suppose	assume	gather	guess
45.	great	fabulous	super	magic
46.	modern	new	up to date	fashionable
47.	Matthew	Mark	Luke	John
48.	acid	tube	beaker	solution
49.	virtue	modesty	purity	innocence
50.	programme	timetable	schedule	plan
51.	excited	enthusiastic	eager	pleased
52.	person	individual	human	man
53.	street	road	lane	avenue
54.	situation	state	condition	problem
55.	attitude	approach	opinion	view
56.	on time	precise	punctual	reliable
57.	infinite	perpetual	circular	never-ending
58.	value	merit	importance	profit
59.	melody	music	tune	song
60.	cook	boil	simmer	stew
61.	expected	due	payable	entitled to
62.	nuisance	trouble	annoyance	bore
63.	clear	lucid	transparent	glassy
64.	cubic	conical	pyramidal	tubular
65.	bookish	studious	academic	intellectual
66.	unsure	doubtful	dubious	undecided

67.	stranger	newcomer	outsider	intruder
68.	lucrative	profitable	worthwhile	rewarding
69.	familiarised	accustomed	attuned	adjusted
70.	believe	presume	suppose	imply
71.	print	renew	issue	withdraw
72.	balance	surplus	rest	residue
73.	total	complete	absolute	entire
74.	daily	weekly	monthly	annual
75.	teaching	tuition	education	training
76.	malnutrition	anemia	osteoporosis	rickets
77.	assessment	valuation	insurance	estimate
78.	electricity	plug	conductor	insulation
79.	intestinal	duodenal	abdominal	coronary
80.	financial	monetary	numismatic	capital
81.	planetary	lunar	celestial	orbital
82.	neutrality	impartiality	objectivity	detachment
83.	depressed	melancholic	desperate	suicidal
84.	Methuselah	Goliath	Neptune	Zeus
85.	lily	anthurium	tulip	thuya
86.	Phantom	Spiderman	Batman	Superman

Appendix 3.2 Reading passages

The Big Issue

A: What's Muriel doing these days? On the dole?

B: No, she's selling the Big Issue outside Smith's in Tudor street.

A: Is that lucrative?

B: Doesn't pay badly at all. Don't look so dubious. I bet she earns more than you with all your education!

A: All you can think of is money, isn't it. You know the price of everything and the value of nothing.

Neighbours from hell

A: Our neighbours are starting to be a real nuisance. I wish they'd turn that awful music down.

B: You're just not attuned to the way young people think today. Insulation from the real world – that's your problem.

Obviously not a Hotspur

A: Don't know where White Hart Lane is?

B: Afraid not. I'm an absolute newcomer round here.

Contrary Mary

A: Mary says she's not eating any more of that Irish stew.

B: Oh, she isn't, is she? I'll soon make her change her tune.

A: Yes, she's due for a serious talking-to ...

Inventory

A: You have done the annual valuation I presume?

B: Not yet. I'm waiting for the numismatic department's response.

Ask the genius

A: Here's a tricky one. What's the difference between tubular and cylindrical?

B: Haven't got a clue. Ask Matthew – he's a studious lad.

Beware of the filth

If this substance is not disposed of properly, it leaves a dangerous residue, which we are responsible for removing.

Food for thought

A: Did you read my article on malnutriton in the Science Review?

B: Yes, a very lucid and well-argued article.

Suit renews our Luke

A: I hear Luke's getting a new suit.

B: Yes, he hardly talks about anything else. He's so enthusiastic about it.

A: He usually dresses quite casually, doesn't he? What's this suit all about?

B: I don't know. I assume he's just trying to change his image. Or impress a potential girlfriend. Or maybe it's for a job interview.

A: Yes, I heard he's got an interview next Tuesday.

B: Oh yes? Who with?

A: Stewart's, the estate agents down the avenue.

B: Well, let's hope his super suit will do the trick.

A: And let's hope he's punctual.

B: Yes, our Luke's not the most punctual individual on the planet.

A: You never know. Maybe the change of suit signals a change of attitude.

Avoiding a duodenal

This situation is really getting on top of me. It's perpetual motion. I hardly have time to catch my breath. I'm just going to have to reduce my schedule. Hard work is a virtue, I know, but there are limits. I've done my duty and now I need to slow down. I don't see any other solution. I'm not Superman. I absolutely don’t want to end up with a duodenal ulcer.

Bomb attack

A: Have you heard the news?

B: No – what’s happened?

A: There’s been a suicidal attack on the tube.

Finding a substitute

A: I see he's going to be away next week. Where's he going?

B: He's off on a field trip to the Wirral peninsula.

A: Do you think we can find a suitable substitute?

Salutation

We salute the neutrality of the Lithuanian people.

A seriously mature piece of cheese

A: I do like a mature bit of cheese, don't you?

B: Well mature – it's been there since January at least and I can see the mould from here!

Barking up the wrong tree

Teacher: During this module we will look at some characteristics of deciduous trees. What are deciduous trees, Lucy?

Lucy: Trees that don't have any bark.

Teacher (thinks): The girl's stupidity is more than I can endure.

Cruelty to fish

Her enthusiasm for tuna disappeared when she saw the film about how they were caught.

How do it dew?

A: Do you know how dew is produced?

B: Something to do with humidity and the precipitation during the night.

Threat of legal action

I will sue you if you repeat your claim that my statue is a stupid and unsuccessful attempt to imitate the sensuality of the work of Rodin.

Tragic Luton

Luton were numerically superior but were outwitted by the superior skill of an unstoppable Watford team.

An ex-man of the cloth

A: It says in his resumé that he was a Jesuit for over ten years.

B: That should not constitute an obstacle as long as he shows an aptitude for the job.

Quiz question

What is the difference between the duration of a lunar month and a calendar month?

Studio fire

He felt almost suicidal when he found out that his studio had been consumed by fire. It was full of valuable paintings and hundreds of priceless volumes.

Puzzler for the teacher

Pupil: Sir, what's the difference between nuclear and atomic?

Teacher: Well, you can have a nuclear explosion and an atomic explosion. They're the same. And you can have a nuclear family but you can't have an atomic family.

Pupil: You don't know my family, sir.

No escape from the taxman

A: The Inland Revenue caught him fiddling his returns and he was put away for the duration.

B: Not for life, surely.

A: Eight years.

Getting it right

A: What form of salutation should I use in this letter: Dear John or dear Mr. Barber?

B: Dear Mr. Barber – it's more formal and neutral.

No problem

A: Barry's pub licence is coming up for renewal shortly – presumably it's just a formality.

B: Is it true that he used to be a steward on P&O Liners?

The right bait

A: What's the best bait for this fish?

B: Use flies to lure perch and worms to catch luce.

Bid to bilk the bill

With the menu in his hand, the waiter pursued the customer who had run off without paying the bill.

Unplanned

A: Do you plan your novels carefully?

B: No, I rely mainly on intuition.

Tongue twister

The suitability of a suet pudding without superfluous plums is a superstition presumably due to Susan's true economy.

Appendix 3.3 **Informant's profile**

This information is confidential and will not be disclosed to any third parties.

year of birth _____ gender M / F Informant number ____

Places you have lived and in what years: _____ _____

_____ _____ _____

_____ _____ _____

Occupation (job title) _____ in private sector ☐

in state sector ☐

Highest qualification

university degree ☐ higher education ☐ A Levels ☐ GCSE ☐ other qualifications ☐ no qualifications ☐

Earnings	weekly	or	monthly	or	annually
	more than £650 ☐		more than £2,600 ☐		more than £33,800 ☐
	£550 – £650 ☐		£2,200 – £2,600 ☐		£28,600 – £33,800 ☐
	£450 – £550 ☐		£1,800 – £2,200 ☐		£23,400 – £28,600 ☐
	£350 – £450 ☐		£1,400 – £1,800 ☐		£18,200 – £23,400 ☐
	£250 – £350 ☐		£1,000 – £1,400 ☐		£13,000 – £18,200 ☐
	less than £250 ☐		less than £1,000 ☐		less than £13,000 ☐

Housing

I live in a ☐ council rented ☐ flat

☐ privately rented ☐ terraced house

☐ owner-occupied ☐ semi-detached house

☐ detached house

Source of information

I read local newspapers ☐ national newspapers ☐ no newspapers ☐

I get news from (please specify) _____ TV channel.

_____ radio channel.

_____ internet website.

Self-observation sheet

How do you **pronounce** the following words?

1) TUESDAY
   a) **tyoo**zday
   b) **too**zday
   c) **chyoo**zday
   d) **choo**zday

2) NEWS
   a) **nyoo**z
   b) **noo**z
   c) _____

3) DURING
   a) **dyoo**ring
   b) **doo**ring
   c) **jyoo**ring
   d) **joo**ring

4) SUITABLE
   a) **syoo**table
   b) **soo**table

5) LUCRATIVE
   a) **lyoo**crative
   b) **loo**crative

6) ENTHUSIASM
   a) en**thyoo**siasm
   b) en**thoo**siasm

7) PRESUMABLY
   a) pre**zyoo**mably
   b) pre**zoo**mably
   c) pre**zhyoo**mably
   d) pre**zhoo**mably

8) SITUATION
   a) si**tyoo**ation
   b) si**too**ation
   c) si**chyoo**ation
   d) si**choo**ation

Appendix 3.4 **Letter to neighbours**

48 Ashbury Drive Weston-super-Mare Somerset BS22 9QS
01934 632057
17 November, 2006

Dear fellow resident,

I am Nigel Kelly. If you don't know me, I have lived at 48 Ashbury Drive since 1985.

From 21 to 27 November I shall be hosting Darina Klevarova, a student at Zurich University in Switzerland. She is carrying out her doctorate research on the English language. This requires her to interview native speakers of English, across all ages, including older children. She has to ask them:

- to read short passages and lists of words, which she records
- a few questions about themselves
- some opinions
- how they pronounce eight words

It takes around twenty minutes.

Over the past twenty years I've found my neighbours a varied and friendly bunch of people. I have therefore suggested to Darina that she is likely to find the range of people she requires for her research, in the Ashbury Drive area. Darina may therefore contact some of you. There's no obligation to take part -just say no, and that's fine. At the same time, she will be delighted if you can help her! Although any native English speaker can take part, she will be extra pleased to interview people who are from the Bristol and Somerset region. She has already done similar research in Essex, where people seemed to find it interesting and enjoyable.

The point of this letter is to reassure you that Darina can be trusted and is not selling anything, no personal information will be identifiable in the thesis, and you will not be contacted back again. Overleaf is a copy of her letter of introduction from her university. If you want any further information, please do ring me.

If you are able to assist Darina, thank you.

Nigel Kelly

Appendix 4.1 Yod distribution across age and preceding context in Braintree

Correlation of informants' age with their percentage of a yod variant in a preceding context

Number of informants = 70, levels of significance: 1% r = 0.306, 5% r = 0.235, 10% r = 0.198

stressed syllables

preceding context	retention	coalescence+j	coalescence	dropping
t	**0,473**	0,242	**-0,512**	0,084
st	**0,409**	0,064	**-0,456**	0,171
d	**0,513**	0,100	**-0,543**	0,083
n	**0,522**	-0,110	**-0,364**	-0,181
s	**0,342**	-0,250	**-0,353**	-0,293
z	**0,279**	-0,209	**-0,391**	-0,009
l	0,233			-0,233
th	-0,263			0,263

unstressed syllables

preceding context	retention	coalescence+j	coalescence	dropping
t	**0,441**	0,249	**-0,508**	0,214
st	**0,494**	-0,155	**-0,471**	0,201
d	**0,458**	**0,312**	**-0,429**	-0,026
n	**0,571**	-0,106	**-0,516**	-0,154
s	0,169	0,245	-0,297	0,014
z	0,050	-0,132	0,152	-0,114
l	0,164			-0,164
th	0,181			-0,181

Correlation of age groups with the group's percentage of a yod variant in a preceding context

Number of groups = 5, levels of significance: 1% r = 0.959, 5% r = 0.878, 10% r = 0.805

stressed syllables

preceding context	retention	coalescence+j	coalescence	dropping
t	0,983	0,756	-0,941	0,170
st	**0,988**	-0,165	-0,886	0,399
d	**0,973**	0,461	-0,913	0,040
n	0,900	-0,823	-0,685	-0,709
s	0,785	-0,772	-0,957	-0,696
z	0,951	-0,956	-0,949	0,914
l	0,906			-0,906
th	-0,778			0,778

unstressed syllables

preceding context	retention	coalescence+j	coalescence	dropping
t	0,966	0,843	-0,959	0,619
st	0,892	-0,714	-0,782	0,543
d	**0,973**	0,846	-0,911	0,040
n	0,936	-0,415	-0,780	-0,554
s	0,554	0,796	-0,896	0,103
z	-0,179	0,927	0,912	-0,803
l	0,721			-0,721
th	0,947			-0,947

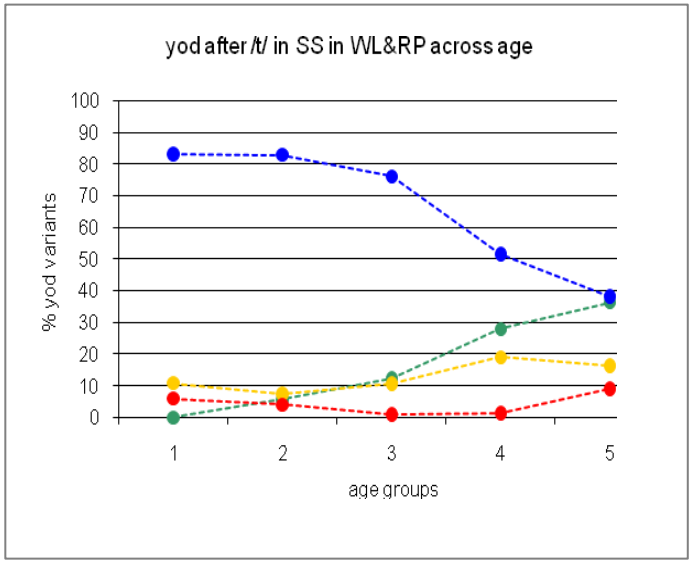
Yod distribution after /t/ across age groups in Braintree

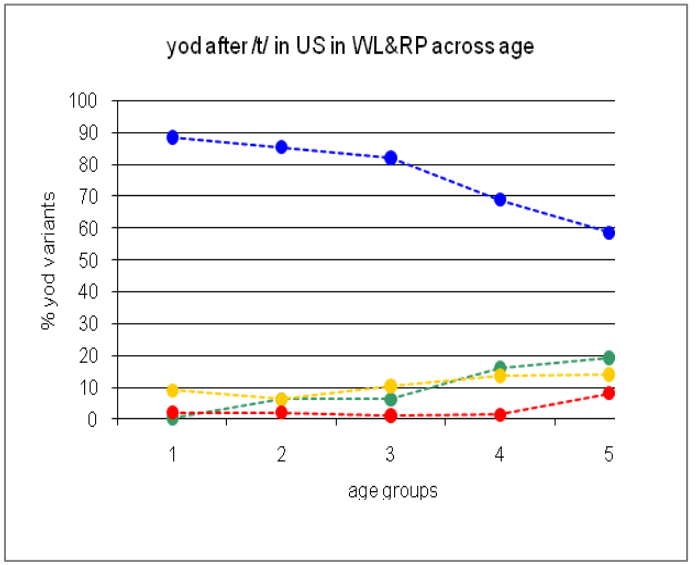
t_SS

age group			1	2	3	4	total	%	1	2	3	4
1	t	SS	0	20	154	11	185		0	11	83	6
2	t	SS	10	13	146	7	176		6	7	83	4
3	t	SS	37	32	230	3	302		12	11	76	1
4	t	SS	85	58	157	4	304		28	19	52	1
5	t	SS	96	43	101	24	264		36	16	38	9
							1231					

t_US

age group			1	2	3	4	total	%	1	2	3	4
1	t	US	1	22	214	5	242		0	9	88	2
2	t	US	15	15	205	5	240		6	6	85	2
3	t	US	27	45	353	5	430		6	10	82	1
4	t	US	70	59	300	6	435		16	14	69	1
5	t	US	71	52	216	30	369		19	14	59	8
							1716					





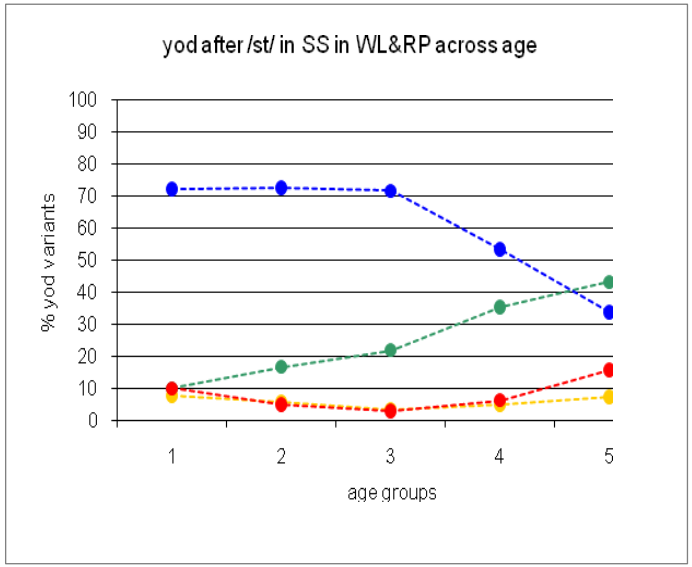
Yod distribution after /st/ across age groups in Braintree

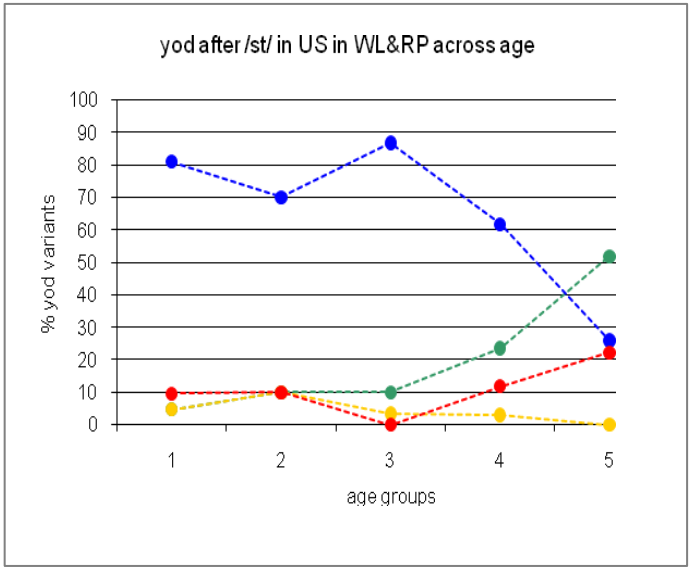
st_SS

age group			1	2	3	4	total	%	1	2	3	4
1	st	SS	13	10	93	13	129		10	8	72	10
2	st	SS	20	7	87	6	120		17	6	73	5
3	st	SS	44	7	144	6	201		22	3	72	3
4	st	SS	72	10	109	13	204		35	5	53	6
5	st	SS	77	13	60	28	178		43	7	34	16
							832					

st_US

age group			1	2	3	4	total	%	1	2	3	4
1	st	US	1	1	17	2	21		5	5	81	10
2	st	US	2	2	14	2	20		10	10	70	10
3	st	US	3	1	26	0	30		10	3	87	0
4	st	US	8	1	21	4	34		24	3	62	12
5	st	US	14	0	7	6	27		52	0	26	22
							132					





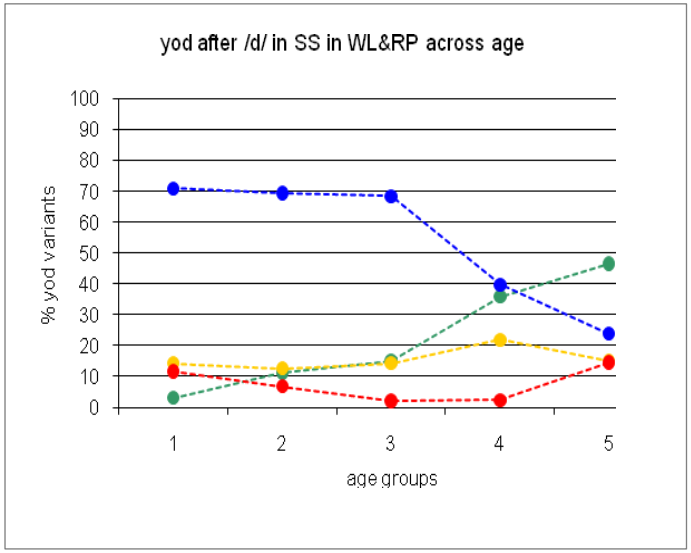
Yod distribution after /d/ across age groups in Braintree

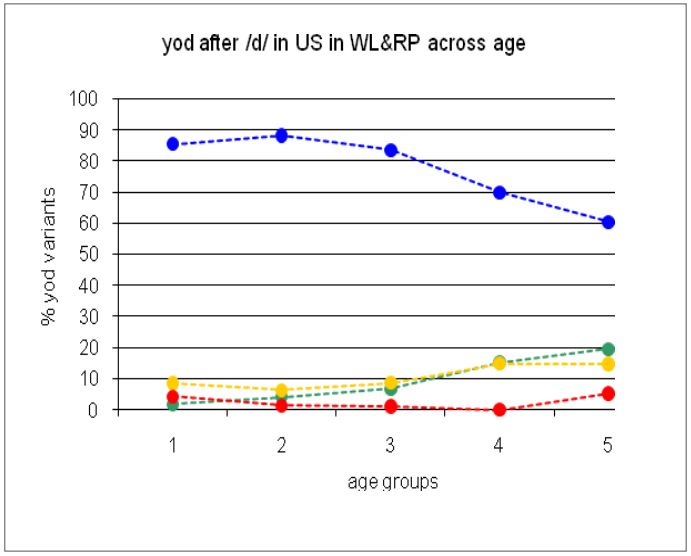
d_SS

age group			1	2	3	4	total	%	1	2	3	4
1	d	SS	7	33	164	27	231		3	14	71	12
2	d	SS	23	26	143	14	206		11	13	69	7
3	d	SS	58	55	262	8	383		15	14	68	2
4	d	SS	139	85	154	9	387		36	22	40	2
5	d	SS	156	50	80	49	335		47	15	24	15
							1542					

d_US

age group			1	2	3	4	total	%	1	2	3	4
1	d	US	3	14	141	7	165		2	8	85	4
2	d	US	6	9	127	2	144		4	6	88	1
3	d	US	18	23	222	3	266		7	9	83	1
4	d	US	41	40	188	0	269		15	15	70	0
5	d	US	45	34	139	12	230		20	15	60	5
							1074					





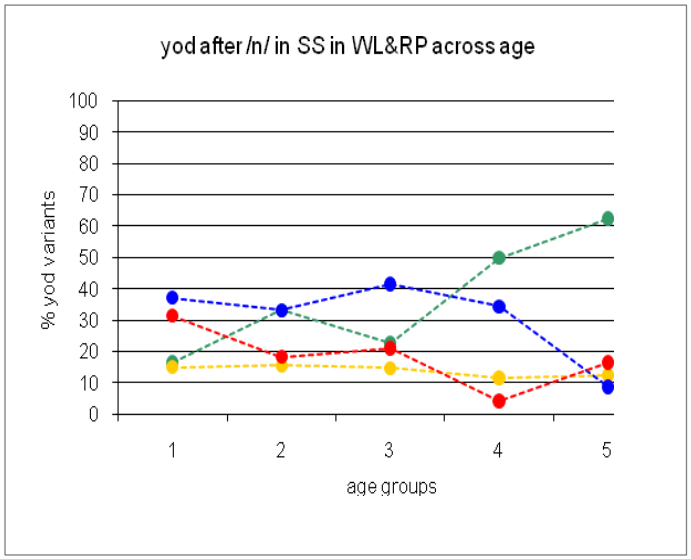
Yod distribution after /n/ across age groups in Braintree

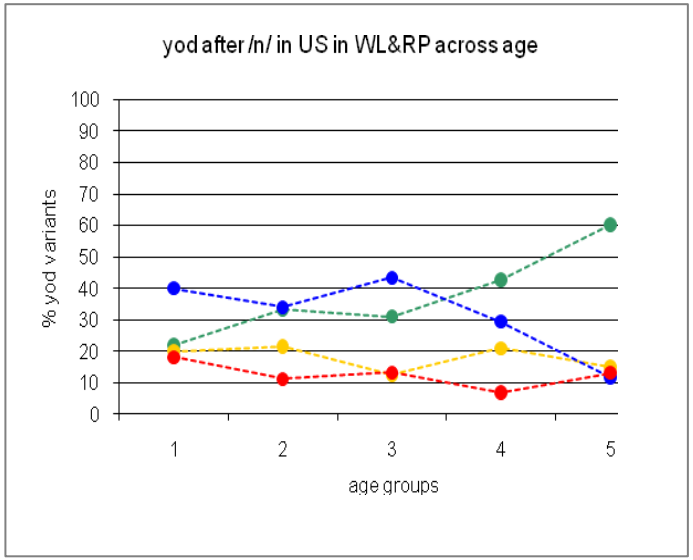
n_SS

age group			1	2	3	4	total	%	1	2	3	4
1	n	SS	34	31	77	65	207		16	15	37	31
2	n	SS	60	28	60	33	181		33	15	33	18
3	n	SS	75	49	138	70	332		23	15	42	21
4	n	SS	164	38	113	14	329		50	12	34	4
5	n	SS	181	36	25	48	290		62	12	9	17
							1339					

n_US

age group			1	2	3	4	total	%	1	2	3	4
1	n	US	35	32	64	29	160		22	20	40	18
2	n	US	48	31	49	16	144		33	22	34	11
3	n	US	80	32	112	34	258		31	12	43	13
4	n	US	112	55	77	18	262		43	21	29	7
5	n	US	133	33	26	29	221		60	15	12	13
							1045					





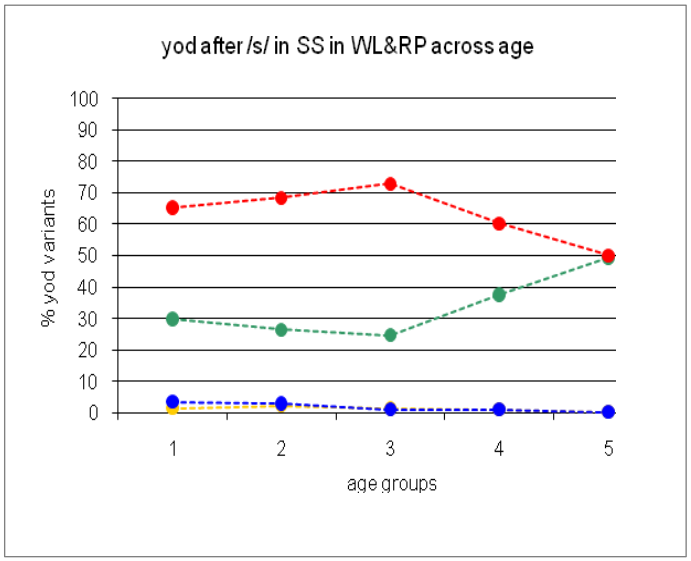
Yod distribution after /s/ across age groups in Braintree

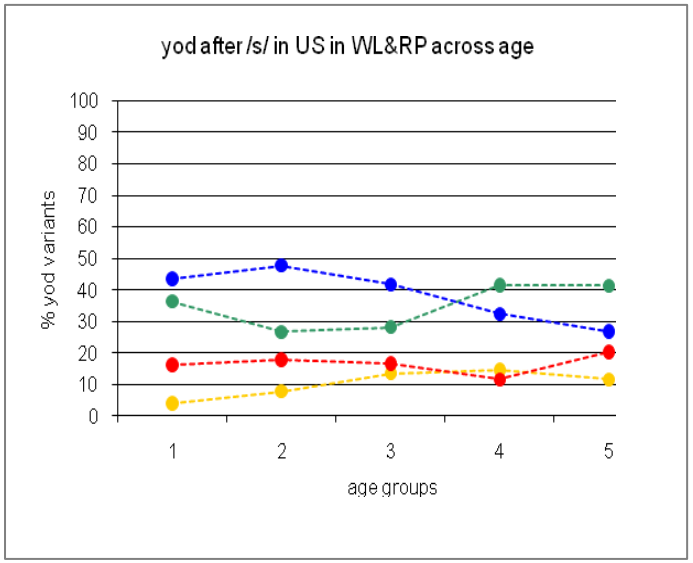
s_SS

age group			1	2	3	4	total	%	1	2	3	4
1	s	SS	86	4	10	188	288		30	1	3	65
2	s	SS	72	6	8	186	272		26	2	3	68
3	s	SS	116	6	5	342	469		25	1	1	73
4	s	SS	178	5	5	285	473		38	1	1	60
5	s	SS	202	1	1	205	409		49	0	0	50
							1911					

s_US

age group			1	2	3	4	total	%	1	2	3	4
1	s	US	36	4	43	16	99		36	4	43	16
2	s	US	24	7	43	16	90		27	8	48	18
3	s	US	46	22	68	27	163		28	13	42	17
4	s	US	68	24	53	19	164		41	15	32	12
5	s	US	57	16	37	28	138		41	12	27	20
							654					





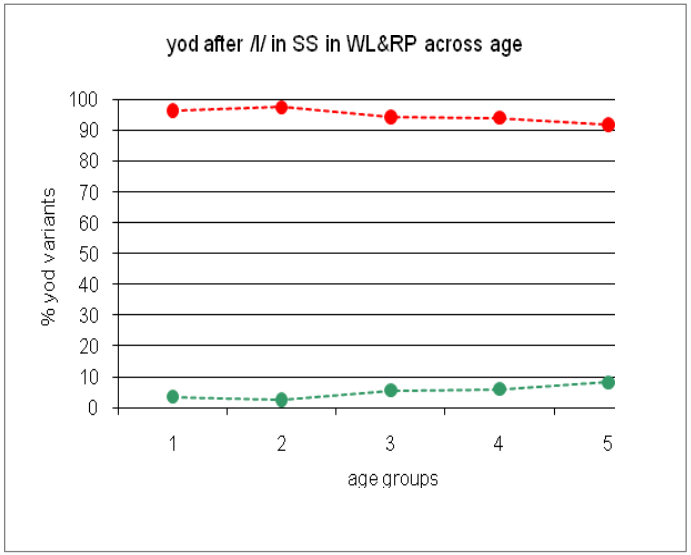
Yod distribution after /l/ across age groups in Braintree

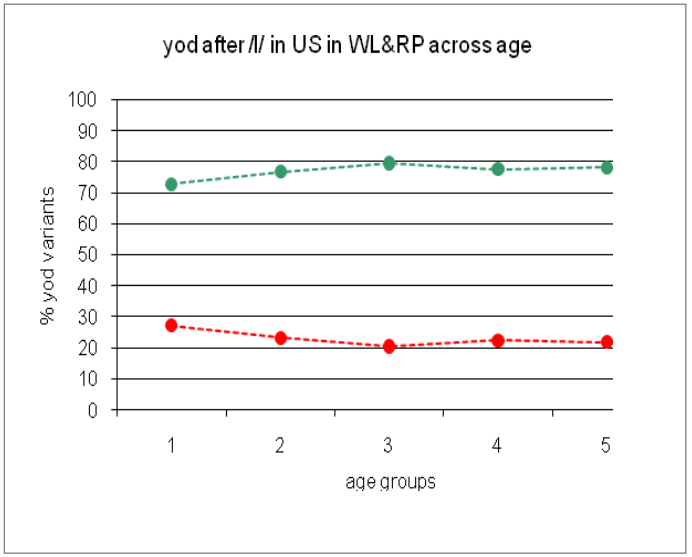
l_SS

age group			1	2	3	4	total	%	1	2	3	4
1	l	SS	8	0	0	218	226		4			96
2	l	SS	5	0	0	198	203		2			98
3	l	SS	20	0	0	335	355		6			94
4	l	SS	21	0	0	332	353		6			94
5	l	SS	25	0	0	280	305		8			92
							1442					

l_US

age group			1	2	3	4	total	%	1	2	3	4
1	l	US	99	0	0	37	136		73			27
2	l	US	99	0	0	30	129		77			23
3	l	US	183	0	0	47	230		80			20
4	l	US	184	0	0	53	237		78			22
5	l	US	154	0	0	43	197		78			22
							929					





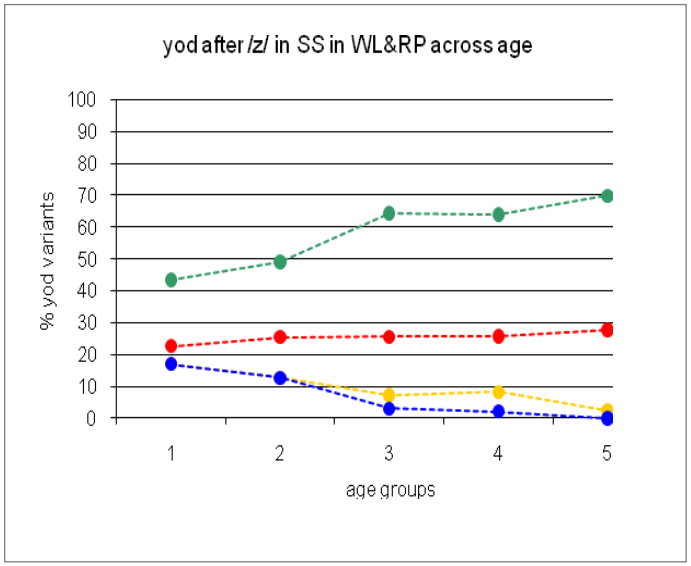
Yod distribution after /z/ across age groups in Braintree

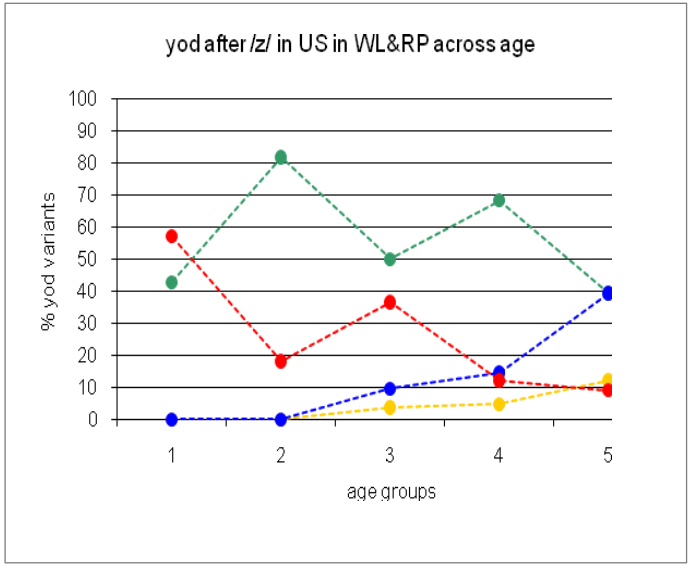
z_SS

age group			1	2	3	4	total	%	1	2	3	4
1	z	SS	23	9	9	12	53		43	17	17	23
2	z	SS	27	7	7	14	55		49	13	13	25
3	z	SS	63	7	3	25	98		64	7	3	26
4	z	SS	62	8	2	25	97		64	8	2	26
5	z	SS	58	2	0	23	83		70	2	0	28
							386					

z_US

age group			1	2	3	4	total	%	1	2	3	4
1	z	US	3	0	0	4	7		43	0	0	57
2	z	US	9	0	0	2	11		82	0	0	18
3	z	US	26	2	5	19	52		50	4	10	37
4	z	US	28	2	6	5	41		68	5	15	12
5	z	US	13	4	13	3	33		39	12	39	9
							144					





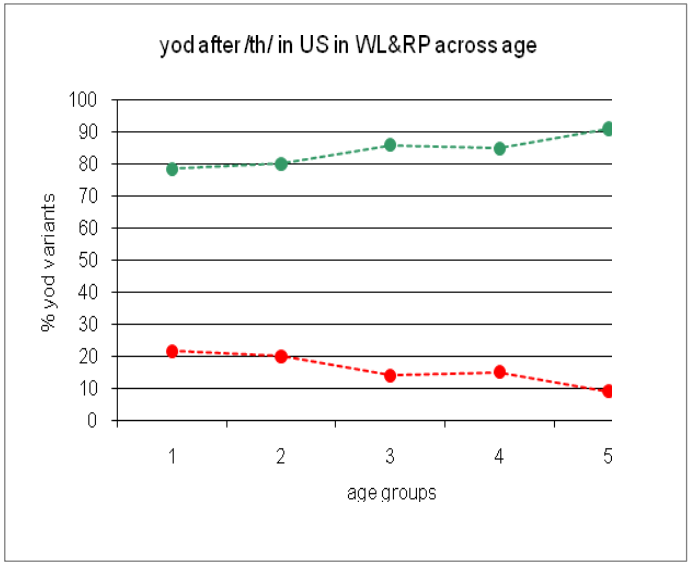
Yod distribution after /θ/ across age groups in Braintree

th_SS

age group			1	2	3	4	total	%	1	2	3	4
1	th	SS	47	0	0	11	58		81			19
2	th	SS	40	0	0	10	50		80			20
3	th	SS	88	0	0	24	112		79			21
4	th	SS	79	0	0	22	101		78			22
5	th	SS	48	0	0	37	85		56			44
							406					

th_US

age group			1	2	3	4	total	%	1	2	3	4
1	th	US	29	0	0	8	37		78			22
2	th	US	28	0	0	7	35		80			20
3	th	US	55	0	0	9	64		86			14
4	th	US	56	0	0	10	66		85			15
5	th	US	50	0	0	5	55		91			9
							257					



Appendix 5.1 Yod distribution across age and preceding context in Weston

Correlation of informants' age with their percentage of a yod variant in a preceding context

Number of informants = 85, levels of significance: 1% r = 0.278, 5% r = 0.215, 10% r = 0.179

stressed syllables

preceding context	retention	coalescence+j	coalescence	dropping
t	**0,295**	-0,205	-0,149	0,124
st	**0,378**	-0,109	**-0,282**	0,001
d	0,256	-0,025	-0,161	-0,199
n	0,219	0,013	-0,039	-0,247
s	**-0,426**	-0,196	-0,194	**0,467**
z	-0,232	-0,049	0,072	0,232
l	**-0,494**			**0,494**
th	-0,209			0,209

unstressed syllables

preceding context	retention	coalescence+j	coalescence	dropping
t	0,147	**-0,306**	0,194	-0,058
st	0,151	-0,044	-0,117	0,020
d	**0,338**	0,206	**-0,343**	0,088
n	**0,381**	-0,154	-0,205	-0,221
s	-0,217	-0,055	0,123	0,198
z	0,207	0,179	**0,372**	**-0,598**
l	-0,024			0,024
th	**0,399**			**-0,399**

Correlation of age groups with the group's percentage of a yod variant in a preceding context

Number of groups = 5, levels of significance: 1% r = 0.959, 5% r = 0.878, 10% r = 0.805

stressed syllables

preceding context	retention	coalescence+j	coalescence	dropping
t	0,947	-0,767	-0,633	0,752
st	0,908	-0,674	-0,695	-0,522
d	0,914	-0,877	-0,665	-0,791
n	0,934	-0,152	-0,384	-0,538
s	-0,925	-0,850	-0,905	0,944
z	-0,872	-0,092	0,829	0,825
l	**-0,991**			**0,991**
th	-0,306			0,306

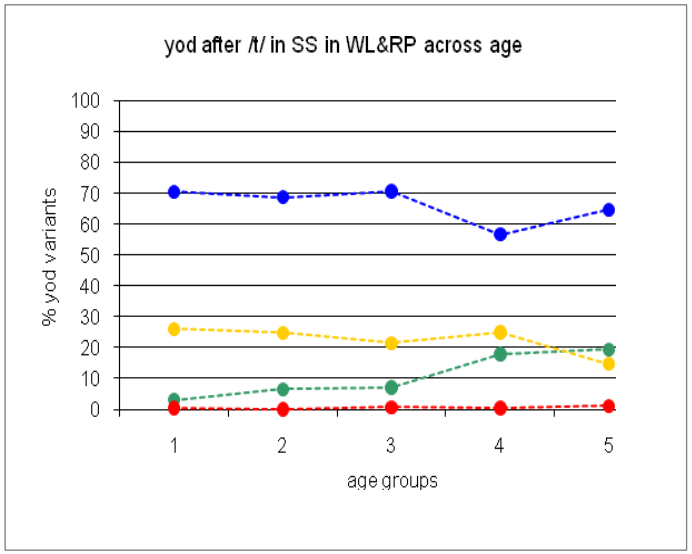
unstressed syllables

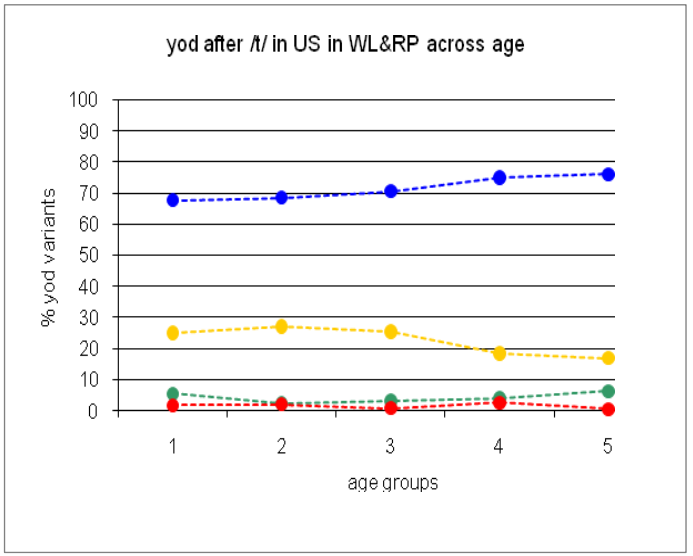
preceding context	retention	coalescence+j	coalescence	dropping
t	0,331	-0,859	0,972	-0,330
st	0,721	-0,707	-0,372	0,176
d	0,828	0,602	-0,765	0,374
n	0,858	-0,524	-0,881	-0,540
s	-0,435	-0,355	0,300	0,754
z	0,246	0,915	0,837	-0,798
l	-0,013			0,013
th	0,942			-0,942

Yod distribution after /t/ across age groups in Weston

t_SS age group			1	2	3	4	total	%	1	2	3	4
1	t	SS	8	68	184	1	261		3	26	70	0
2	t	SS	14	53	147	0	214		7	25	69	0
3	t	SS	19	58	191	2	270		7	21	71	1
4	t	SS	70	98	222	2	392		18	25	57	1
5	t	SS	70	53	233	4	360		19	15	65	1
							1497					

t_US age group			1	2	3	4	total	%	1	2	3	4
1	t	US	19	87	235	6	347		5	25	68	2
2	t	US	7	81	205	6	299		2	27	69	2
3	t	US	12	98	271	3	384		3	26	71	1
4	t	US	22	101	409	14	546		4	18	75	3
5	t	US	33	88	395	3	519		6	17	76	1
							2095					

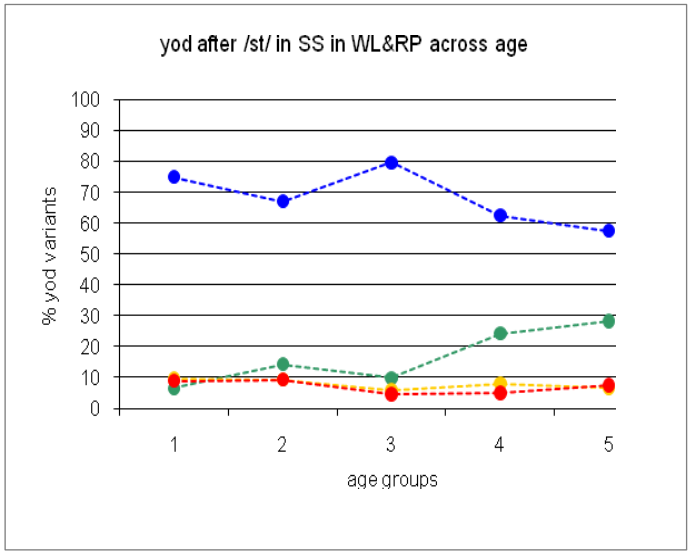


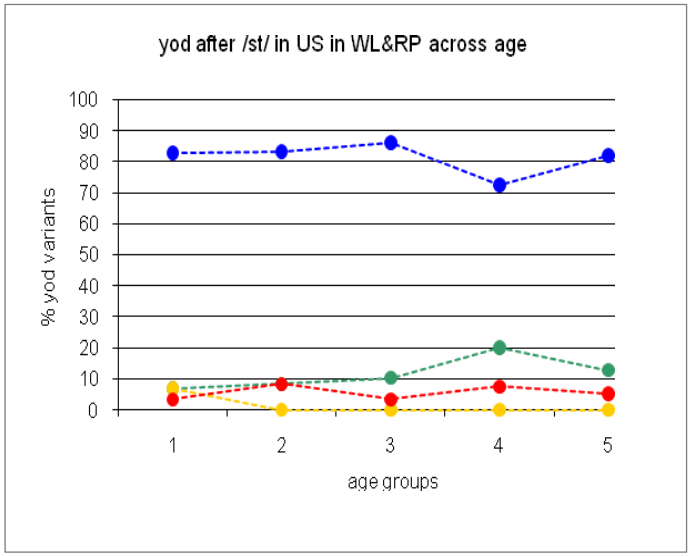


Yod distribution after /st/ across age groups in Weston

st_SS age group			1	2	3	4	total	%	1	2	3	4
1	st	SS	11	16	126	15	168		7	10	75	9
2	st	SS	20	13	94	13	140		14	9	67	9
3	st	SS	17	10	137	8	172		10	6	80	5
4	st	SS	63	21	162	13	259		24	8	63	5
5	st	SS	68	16	138	18	240		28	7	58	8
							979					

st_US age group			1	2	3	4	total	%	1	2	3	4
1	st	US	2	2	24	1	29		7	7	83	3
2	st	US	2	0	20	2	24		8	0	83	8
3	st	US	3	0	25	1	29		10	0	86	3
4	st	US	8	0	29	3	40		20	0	73	8
5	st	US	5	0	32	2	39		13	0	82	5
							161					





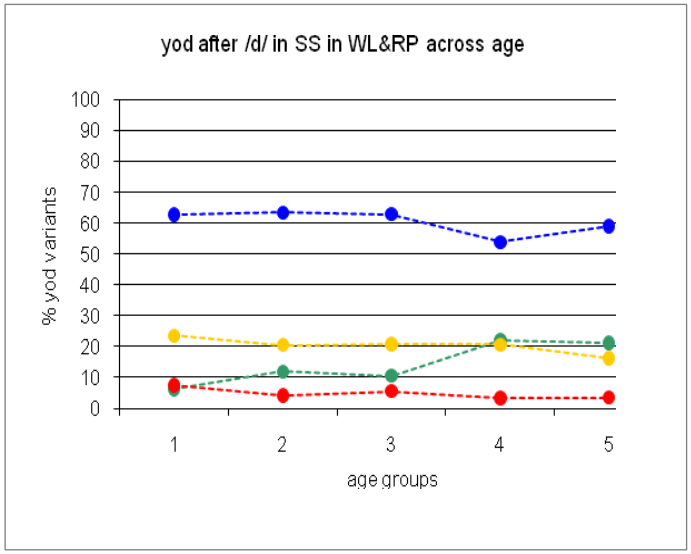
Yod distribution after /d/ across age groups in Weston

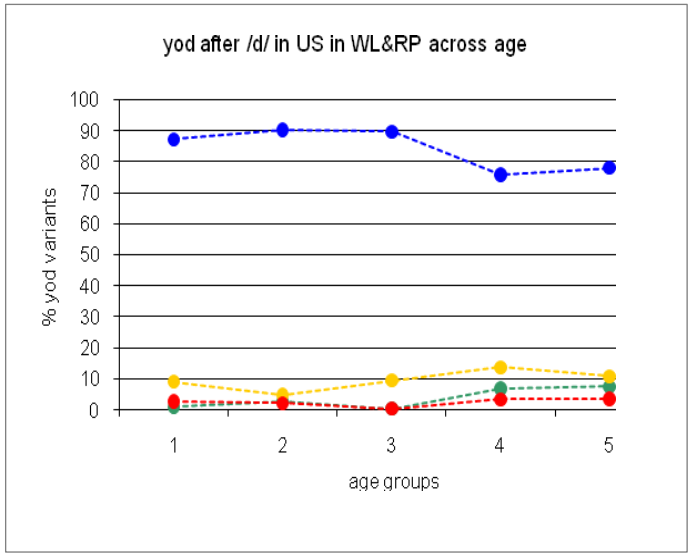
d_SS

age group			1	2	3	4	total	%	1	2	3	4
1	d	SS	19	72	192	23	306		6	24	63	8
2	d	SS	32	55	170	11	268		12	21	63	4
3	d	SS	36	71	214	19	340		11	21	63	6
4	d	SS	109	102	267	17	495		22	21	54	3
5	d	SS	96	74	268	16	454		21	16	59	4
							1863					

d_US

age group			1	2	3	4	total	%	1	2	3	4
1	d	US	2	20	191	6	219		1	9	87	3
2	d	US	5	9	168	4	186		3	5	90	2
3	d	US	1	22	208	1	232		0	9	90	0
4	d	US	24	48	264	12	348		7	14	76	3
5	d	US	23	33	238	11	305		8	11	78	4
							1290					





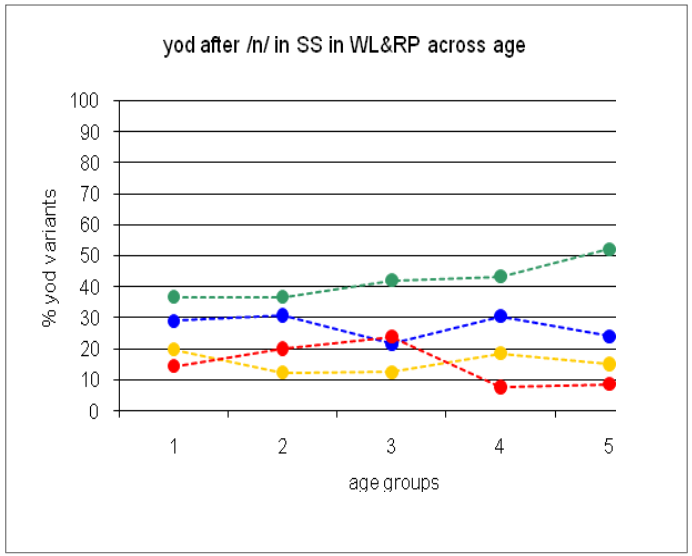
Yod distribution after /n/ across age groups in Weston

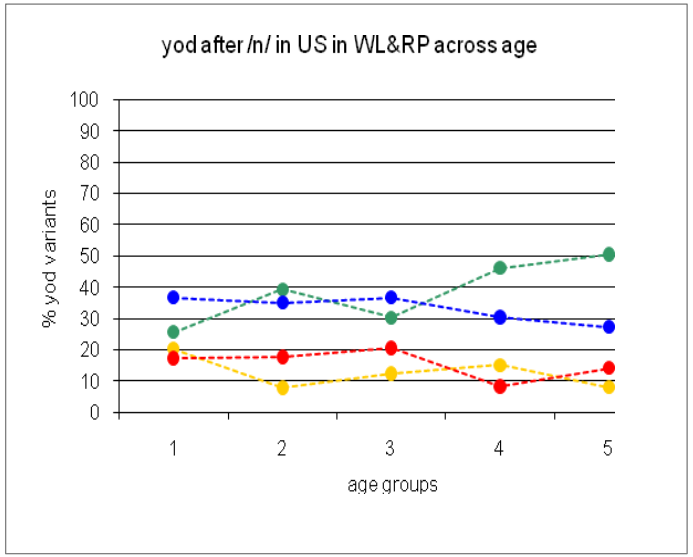
n_SS

age group			1	2	3	4	total	%	1	2	3	4
1	n	SS	104	56	82	41	283		37	20	29	14
2	n	SS	86	29	72	47	234		37	12	31	20
3	n	SS	125	37	64	71	297		42	12	22	24
4	n	SS	187	80	132	33	432		43	19	31	8
5	n	SS	204	59	94	34	391		52	15	24	9
							1637					

n_US

age group			1	2	3	4	total	%	1	2	3	4
1	n	US	53	42	76	36	207		26	20	37	17
2	n	US	75	15	67	34	191		39	8	35	18
3	n	US	71	29	86	48	234		30	12	37	21
4	n	US	156	51	103	28	338		46	15	30	8
5	n	US	157	25	85	44	311		50	8	27	14
							1281					





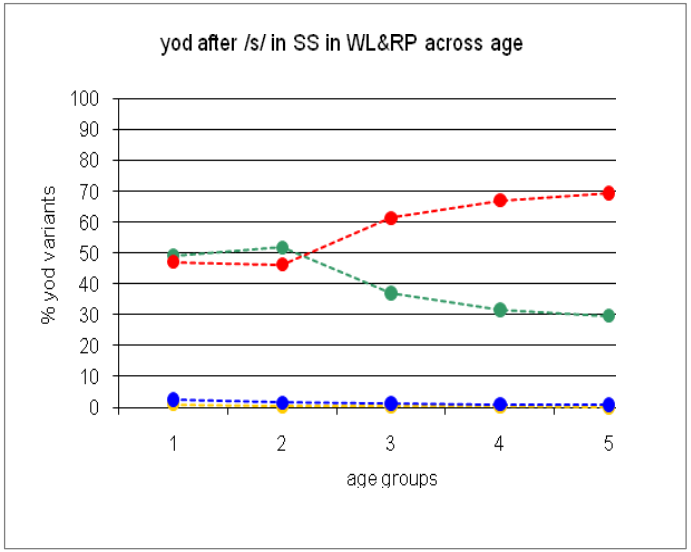
Yod distribution after /s/ across age groups in Weston

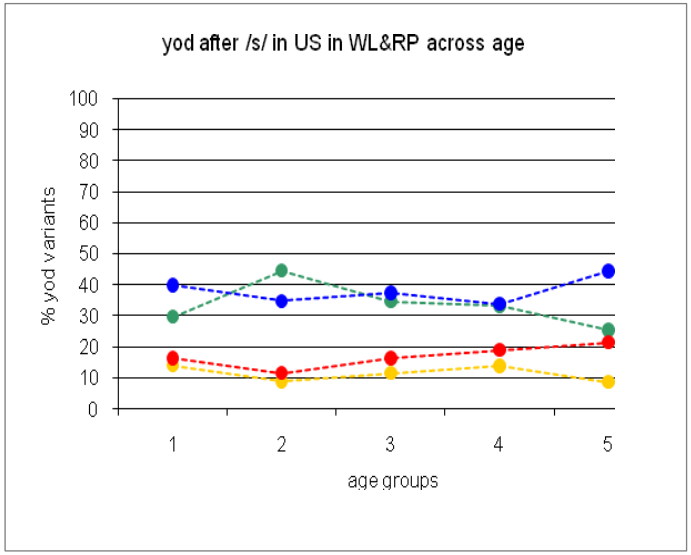
s_SS

age group			1	2	3	4	total	%	1	2	3	4
1	s	SS	193	4	10	185	392		49	1	3	47
2	s	SS	169	1	5	151	326		52	0	2	46
3	s	SS	153	2	5	254	414		37	0	1	61
4	s	SS	189	2	6	401	598		32	0	1	67
5	s	SS	162	0	5	379	546		30	0	1	69
							2276					

s_US

age group			1	2	3	4	total	%	1	2	3	4
1	s	US	38	18	51	21	128		30	14	40	16
2	s	US	50	10	39	13	112		45	9	35	12
3	s	US	51	17	55	24	147		35	12	37	16
4	s	US	72	30	73	41	216		33	14	34	19
5	s	US	50	17	87	42	196		26	9	44	21
							799					





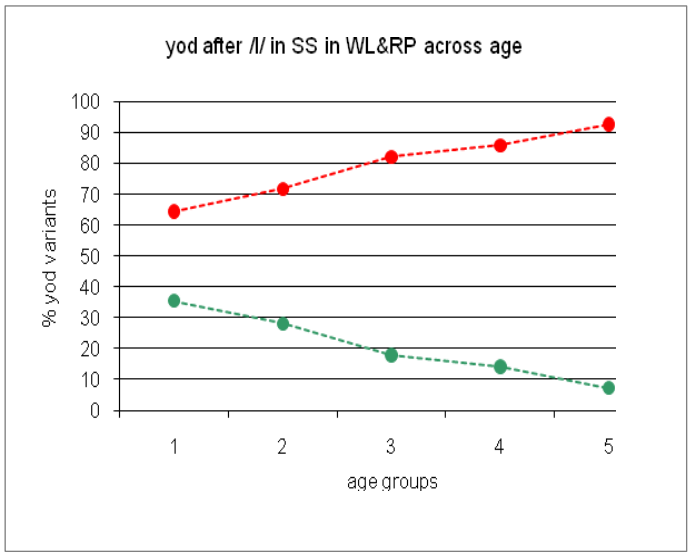
Yod distribution after /l/ across age groups in Weston

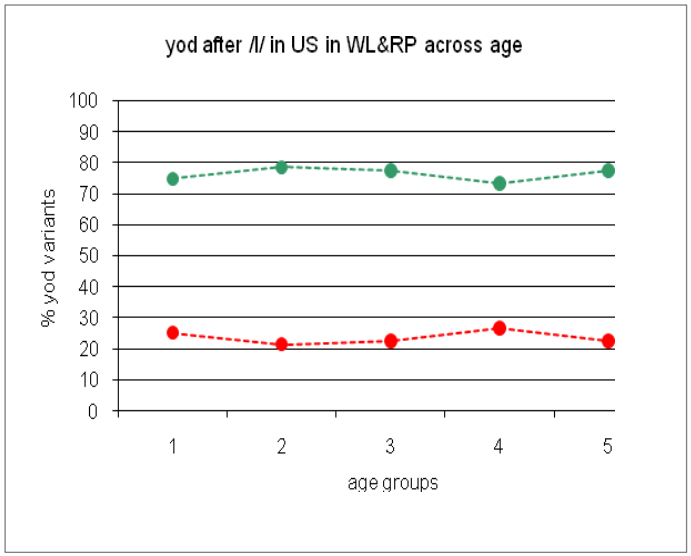
l_SS

age group			1	2	3	4	total	%	1	2	3	4
1	l	SS	104	0	0	189	293		35			65
2	l	SS	71	0	0	181	252		28			72
3	l	SS	56	0	0	258	314		18			82
4	l	SS	65	0	0	396	461		14			86
5	l	SS	30	0	0	383	413		7			93
							1733					

l_US

age group			1	2	3	4	total	%	1	2	3	4
1	l	US	143	0	0	48	191		75			25
2	l	US	128	0	0	35	163		79			21
3	l	US	162	0	0	47	209		78			22
4	l	US	222	0	0	81	303		73			27
5	l	US	209	0	0	61	270		77			23
							1136					





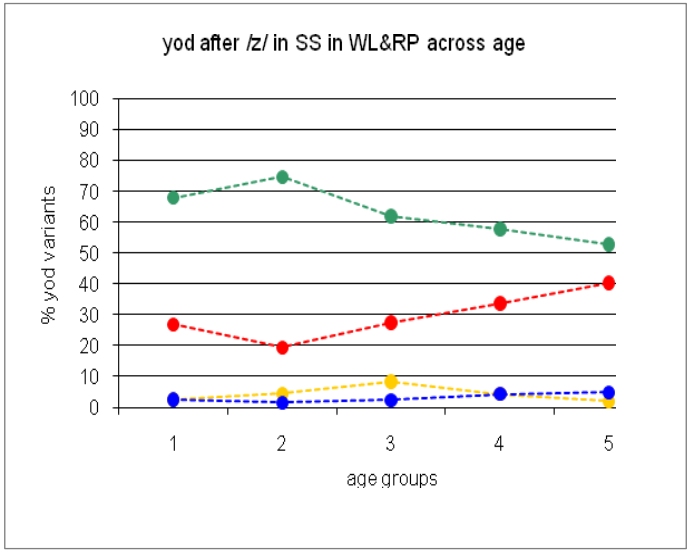
Yod distribution after /z/ across age groups in Weston

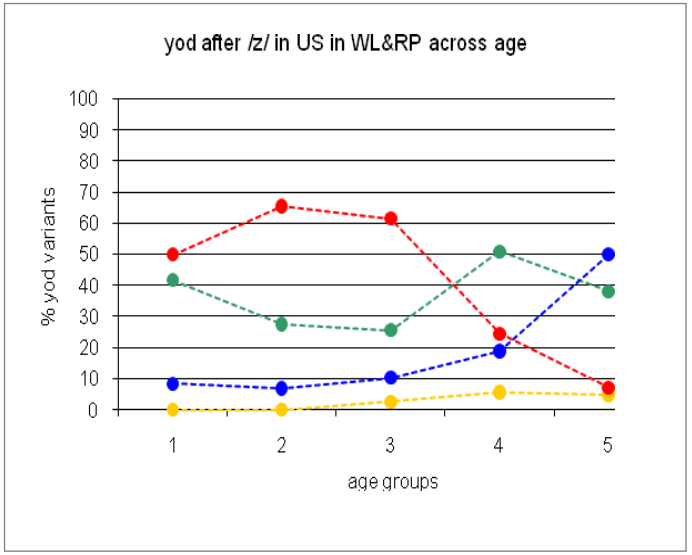
z_SS

age group			1	2	3	4	total	%	1	2	3	4
1	z	SS	53	2	2	21	78		68	3	3	27
2	z	SS	50	3	1	13	67		75	4	1	19
3	z	SS	52	7	2	23	84		62	8	2	27
4	z	SS	67	5	5	39	116		58	4	4	34
5	z	SS	55	2	5	42	104		53	2	5	40
							449					

z_US

age group			1	2	3	4	total	%	1	2	3	4
1	z	US	5	0	1	6	12		42	0	8	50
2	z	US	8	0	2	19	29		28	0	7	66
3	z	US	10	1	4	24	39		26	3	10	62
4	z	US	27	3	10	13	53		51	6	19	25
5	z	US	16	2	21	3	42		38	5	50	7
							175					





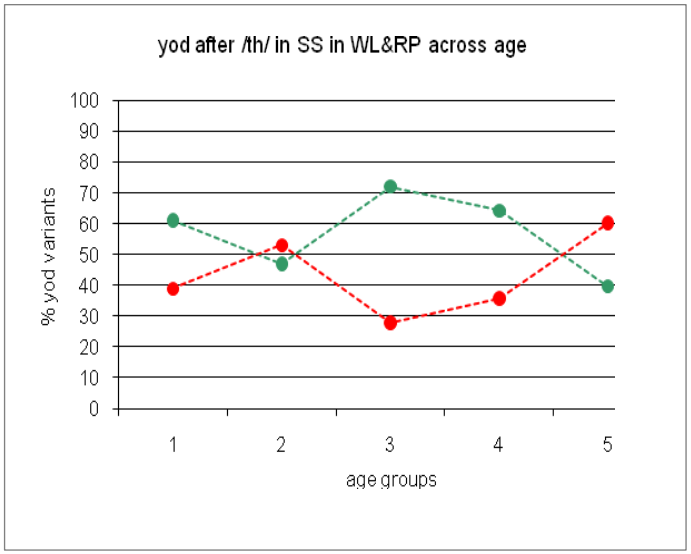
Yod distribution after /θ/ across age groups in Weston

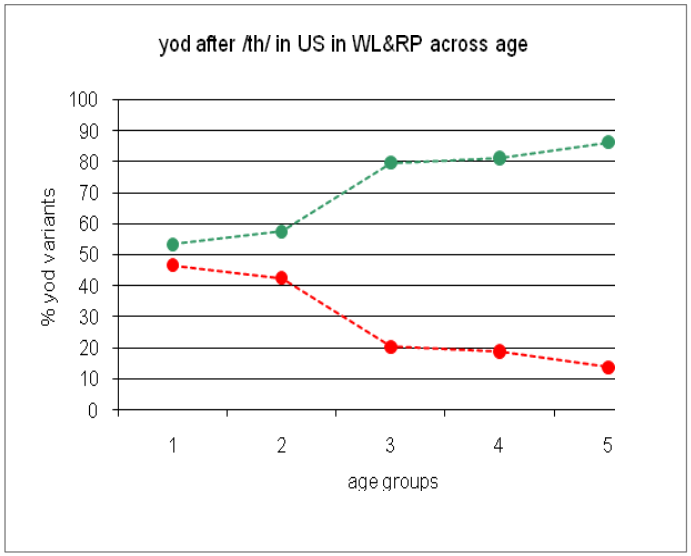
th_SS

age group			1	2	3	4	total	%	1	2	3	4
1	th	SS	44	0	0	28	72		61			39
2	th	SS	31	0	0	35	66		47			53
3	th	SS	62	0	0	24	86		72			28
4	th	SS	81	0	0	45	126		64			36
5	th	SS	46	0	0	70	116		40			60
							466					

th_US

age group			1	2	3	4	total	%	1	2	3	4
1	th	US	24	0	0	21	45		53			47
2	th	US	27	0	0	20	47		57			43
3	th	US	47	0	0	12	59		80			20
4	th	US	69	0	0	16	85		81			19
5	th	US	63	0	0	10	73		86			14
							309					





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